CLARK
UNIVERSITY

ACADEMIC CATALOG 1998–1999

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CLARK
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Academic Catalog 1998–1999

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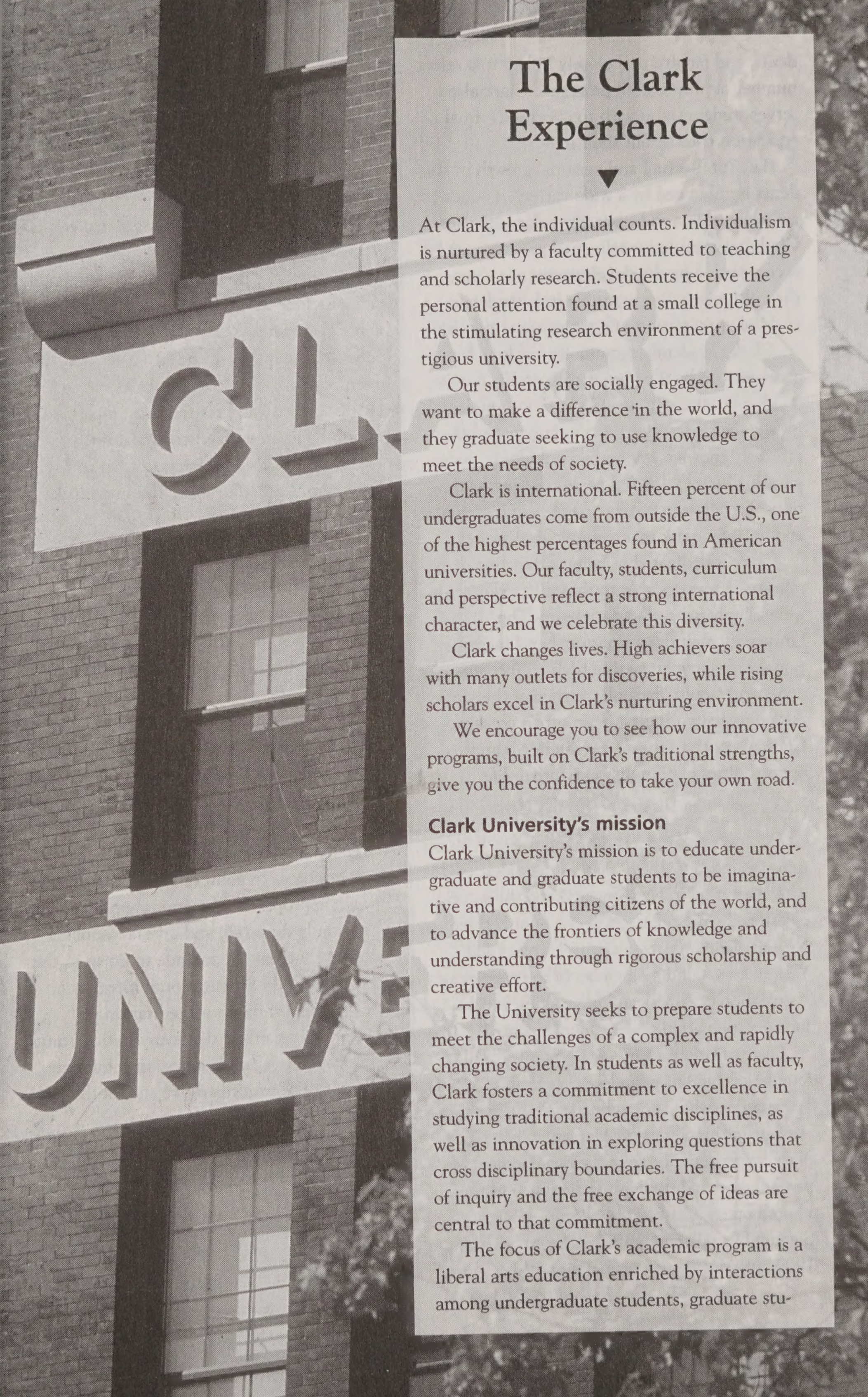

The Clark Experience

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At Clark, the individual counts. Individualism is nurtured by a faculty committed to teaching and scholarly research. Students receive the personal attention found at a small college in the stimulating research environment of a prestigious university.

Our students are socially engaged. They want to make a difference in the world, and they graduate seeking to use knowledge to meet the needs of society.

Clark is international. Fifteen percent of our undergraduates come from outside the U.S., one of the highest percentages found in American universities. Our faculty, students, curriculum and perspective reflect a strong international character, and we celebrate this diversity.

Clark changes lives. High achievers soar with many outlets for discoveries, while rising scholars excel in Clark's nurturing environment.

We encourage you to see how our innovative programs, built on Clark's traditional strengths, give you the confidence to take your own road.

Clark University's mission

Clark University's mission is to educate undergraduate and graduate students to be imaginative and contributing citizens of the world, and to advance the frontiers of knowledge and understanding through rigorous scholarship and creative effort.

The University seeks to prepare students to meet the challenges of a complex and rapidly changing society. In students as well as faculty, Clark fosters a commitment to excellence in studying traditional academic disciplines, as well as innovation in exploring questions that cross disciplinary boundaries. The free pursuit of inquiry and the free exchange of ideas are central to that commitment.

The focus of Clark's academic program is a liberal arts education enriched by interactions among undergraduate students, graduate students, and faculty, and closely linked to a select number of professional programs. Clark also serves students who wish to continue formal education throughout their lives.

The intellectual and personal growth of students is enhanced by a wide variety of educational programs and extracurricular activities. Clark believes that intellectual growth must be accompanied by the development of values, the cultivation of responsible independence, and the appreciation of a range of perspectives.

Clark's academic community has long been distinguished by the pursuit of scientific inquiry and humanistic studies, enlivened by a concern for significant social issues. Among many other scholarly endeavors, Clark contributes to understanding human development, assessing relationships between people and the environment, and managing risk in a technological society.

Clark is dedicated to being a dynamic community of learners able to thrive in today's increasingly interrelated societies. The University maintains a national and international character, attracting high-caliber students and faculty from all quarters of the globe. As a university residing in an urban context, Clark also strives to address the needs and opportunities of contemporary urban life.

History

Clark University is a teaching and research institution founded in 1887. Clark is the oldest graduate institution in New England and the second oldest in the nation. Clark is one of only three New England universities, with Harvard and Yale, to be a founding member of the prestigious Association of American Universities, which includes the nation's research universities.

Clark's first president was G. Stanley Hall, founder of the American Psychological Association, who earned the first Ph.D. in psychology in this country at Harvard. Clark has played a prominent role in the development of psychology as a distinguished discipline in the United States. Clark was the location for Sigmund Freud's famous "Clark Lectures" in 1909, introducing psychoanalysis to this country.

Clark also has played an important role in the development of geography as a discipline. Clark has granted more Ph.D.s in this environmentally related area than any other school in the nation. The George Perkins Marsh Institute was the first research center created to study the human dimensions of global environmental change.

Researchers who have held Clark appointments include A.A. Michelson, the first U.S. Nobel Prize winner in the sciences; and Robert Goddard, the father of the space age and the inventor of rocket technology. Other researchers at Clark, for instance, measured the windchill factor, defined chemical double bonding, developed research leading to the birth control pill, and made the first breakthrough in understanding how brain tissue regenerates itself.

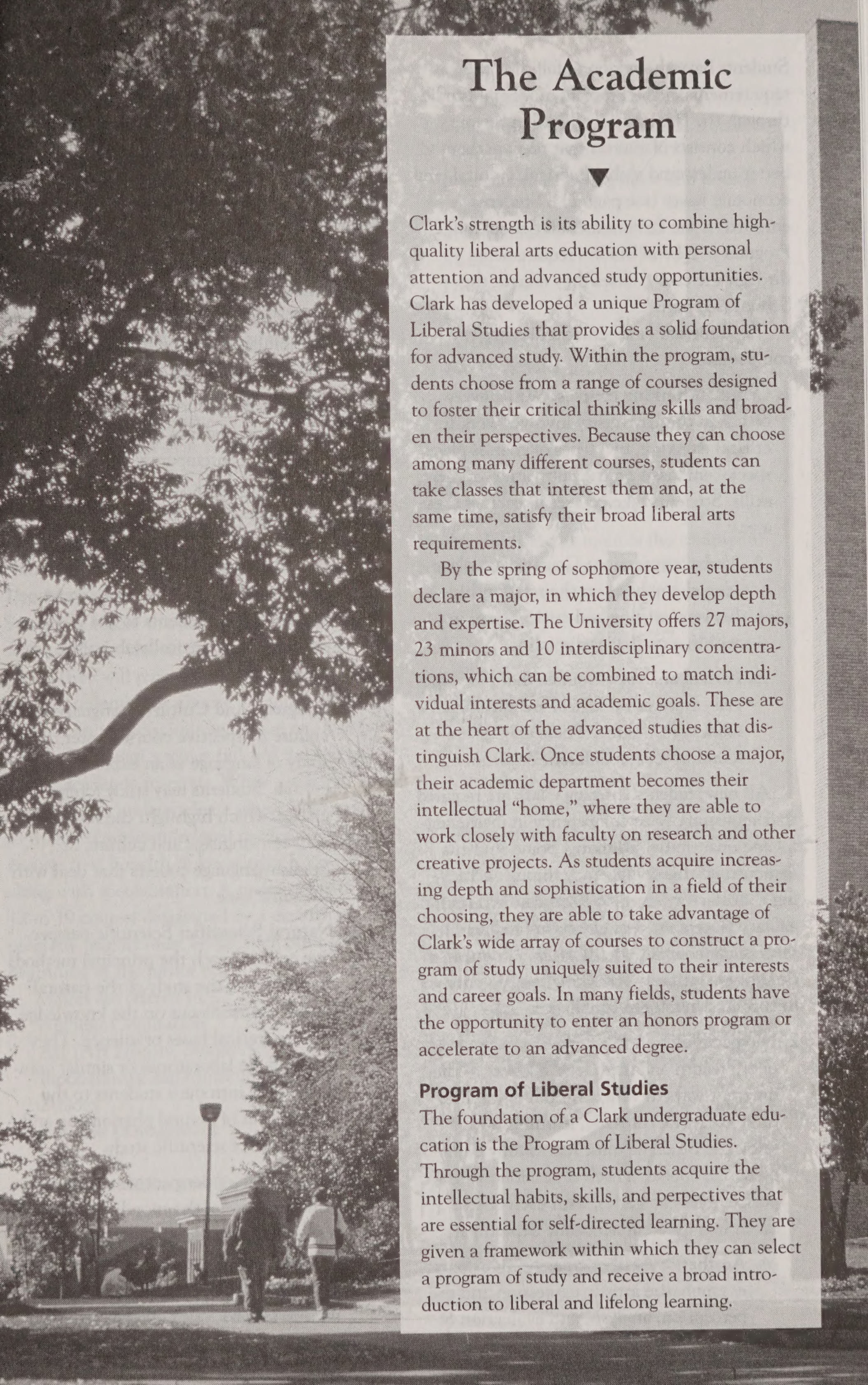
Accreditation

Clark University is accredited by the New England Association of Schools and Colleges, Inc. through its Commission on Institutions of Higher Education.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer-review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:

Commission on Institutions of Higher Education
New England Association of Schools and Colleges
209 Burlington Road
Bedford, MA 01730-1433
(617) 271-0022
E-mail: cihe@neasc.org



The Academic Program

Clark's strength is its ability to combine high-quality liberal arts education with personal attention and advanced study opportunities. Clark has developed a unique Program of Liberal Studies that provides a solid foundation for advanced study. Within the program, students choose from a range of courses designed to foster their critical thinking skills and broaden their perspectives. Because they can choose among many different courses, students can take classes that interest them and, at the same time, satisfy their broad liberal arts requirements.

By the spring of sophomore year, students declare a major, in which they develop depth and expertise. The University offers 27 majors, 23 minors and 10 interdisciplinary concentrations, which can be combined to match individual interests and academic goals. These are at the heart of the advanced studies that distinguish Clark. Once students choose a major, their academic department becomes their intellectual "home," where they are able to work closely with faculty on research and other creative projects. As students acquire increasing depth and sophistication in a field of their choosing, they are able to take advantage of Clark's wide array of courses to construct a program of study uniquely suited to their interests and career goals. In many fields, students have the opportunity to enter an honors program or accelerate to an advanced degree.

Program of Liberal Studies

The foundation of a Clark undergraduate education is the Program of Liberal Studies. Through the program, students acquire the intellectual habits, skills, and perpectives that are essential for self-directed learning. They are given a framework within which they can select a program of study and receive a broad introduction to liberal and lifelong learning.

Students have the option of fulfilling the requirements of the Program of Liberal Studies, through the "International Studies Stream," which consists of courses that prepare them to better understand global political, cultural, and economic issues (see page 21). Students enrolled in the Environmental School fulfill Program of Liberal Studies requirements through the core courses they take in the School (see page 15).

The Program of Liberal Studies has two components:

1. **Critical Thinking courses:** While every course in the University involves work in critical thinking, two types of courses place special emphasis on the cultivation of these skills. Students take courses in each of these areas:
    - **A. Verbal expression:** Courses that place special emphasis on the relationship between writing and critical thinking within a particular discipline.
    - **B. Formal analysis:** Courses that place special emphasis on logical and algebraic modes of thinking. These courses are found in several different departments.

All new students entering Clark are required to demonstrate basic competency in mathematics and quantitative thinking. Some students demonstrate this competency through achieving a satisfactory score on a standardized test or a Clark placement test. Others are required to successfully complete the IDND17 "Foundations of Quantitative Thinking" course prior to enrolling in a formal analysis course.

2. **Perspectives courses:** Perspectives courses offer breadth and introduce students to the different ways in which various disciplines or fields define thinking, learning, and knowing. Students must successfully complete one course in each of the following six perspectives categories, with each course taken in a different academic department:
    - **A. Aesthetic:** Aesthetic perspective courses emphasize artistic expression and the perception, analysis, and evaluation of aesthetic form. These courses are designed to enhance students' appreciation and understanding of the arts.
    - **B. Comparative:** Comparative perspective courses introduce students to comparative analysis by highlighting human diversity in politics, economics, religion, culture, class, race, gender, or ethnicity. They provide students with tools for analyzing human experience by examining similarities and differences within and across societies.
    - **C. Historical:** Historical perspective courses develop students' capacity to understand the contemporary world in the larger framework of tradition and history. Courses focus on the problems of interpreting the past and can also deal with the relationship between past and present. All courses are broad in scope and introduce students to the ways scholars think critically about the past, present, and future.
    - **D. Language and Culture:** Language and culture perspective courses foster the study of language as an expression of culture. Students may study foreign languages, which highlight the relationship between language and culture, or English-language courses that deal with the same issue.
    - **E. Natural Scientific:** Scientific perspective courses teach the principal methods and results of the study of the natural world. Courses focus on the knowledge and theoretical bases of science. They also include laboratories or similar components to introduce students to the observation of natural phenomena and the nature of scientific study.
    - **F. Values:** Values perspective courses seek to make sense of the moral dimension of human life, as reflected in personal behavior, social policy, and institutional structure. Courses taught from the values perspective focus on the analysis of

ethical issues and engage students in the formulation and reasoned evaluation of moral and ethical claims.

An Academic Challenge: The First-Year Seminar

First-year Seminars are offered by a variety of academic departments. The seminars allow students to explore particular issues and subjects in depth in their first or second semester. Seminars are limited to no more than 15 students, and the faculty member teaching the seminar serves as the advisor for the students during their first two years at Clark. The seminars encourage first-year students to engage in the kind of intense intellectual experience that other colleges often reserve for junior and senior majors. See page 11 for descriptions of specific first-year seminars.

The Major

Sometime before the end of their sophomore years, students choose a major, the area in which they will pursue a course of study in-depth. Students may choose a traditional discipline or an interdisciplinary major, or, in some cases, may design a major tailored to their particular academic interests. While anchored in one area, the undergraduate major is structured to include courses in related disciplines. This ensures that breadth of knowledge is gained along with specialization. A major consists of 12 to 19 courses designated by a department or program. Majors must be declared prior to the beginning of the junior year.

Majors are offered in:

Ancient Civilization
Art (Art History, Studio Art)
Biochemistry and Molecular Biology
Biology
Business Management
Chemistry
Communication and Culture
Comparative Literature
Computer Science
Economics
English
Environmental Science and Policy
French
Geography
Government and International Relations
History
International Development and Social Change
Mathematics
Music
Philosophy
Physics
Psychology
Screen Studies
Sociology
Spanish
Theater Arts

Interdisciplinary Majors

One of Clark's strengths is the eagerness of faculty and students to cross the traditional boundaries between academic fields. Interdisciplinary majors, special programs, and concentrations help students to see beyond the barriers of academic specialization. The interdisciplinary majors are:

Ancient Civilization
Biochemistry and Molecular Biology
Communication and Culture
Comparative Literature
Environmental Science and Policy
International Development and Social Change

Student-Designed Majors

Because Clark students are encouraged to take the initiative in defining their academic objectives, their declared major need not be confined to traditional departmental majors or to the University's existing interdisciplinary programs. Some students take advantage of the opportunity to design their own majors—combining the perspectives of several fields to focus on a particular topic. Student-designed majors are coordinated by the dean of the college and developed with the guidance of faculty advisors. They must be approved by the dean of the college by the beginning of the junior year. Guidelines for student-designed majors are available in the Dean of the College's office.

Minors

Minors give students an opportunity to gain depth in an academic area in addition to their major field of study. Minors are offered in:

Ancient Civilization
Art History
Biochemistry and Molecular Biology
Biology
Chemistry
Computer Science
Communication and Culture
Economics
Education
English
Foreign Languages (French, German, Spanish)
Geography
Government
History
International Development
Management
Mathematics
Music
Philosophy
Physics
Screen Studies
Sociology
Theater Arts

Concentrations

Concentrations allow students to cross traditional academic disciplines to gain broad perspectives on a subject in addition to their major. Concentrations are offered in:

Asian Studies
Computational Science
Cultural Identities and Global Processes
Ethics and Public Policy
Holocaust and Genocide Studies
Jewish Studies
Law and Society
Peace Studies
Race and Ethnic Relations
Women's Studies

Accelerated Degree Programs

Clark offers several programs that allow students to complete the requirements for bachelor's and master's degrees in an accelerated, five-year period. Students who pursue a four-year bachelor's degree at Clark are eligible for a fifth year of their education free to obtain a master of arts (MA), master of business administration (MBA), master of public administration (MPA), or master of science in professional communication (MSPC) degree.

To be eligible to earn both a bachelor's and a master's degree for the price of a bachelor's degree, students must maintain at least a 3.25 grade-point average. Students are accepted into accelerated degree programs in their junior year, begin meeting requirements in their senior year, and complete those requirements in the fifth year. Bachelor's degrees are granted en route to the master's degree.

The University has approved accelerated programs in biology; chemistry; communications; education; environmental science and policy; history; international development; management; and physics.

For further information and application procedures, contact the Dean of Graduate Studies at (508) 793-7760.

Preprofessional Programs

Clark University recognizes that preparation for a professional career is fully compatible with a liberal arts education. Clark offers preparation for careers in management, computer science, education, engineering, law, medicine, and other health sciences. The Prelaw Program is administered through the Office of Career Services in conjunction with a faculty advisory committee. Premedical or predental students are advised through a special Premedical and Predental Advisory Committee.

Internships

Qualified students are offered the opportunity to earn credit working off campus, full- or part-time, as part of their educational program. Academic credit is offered for internships that take place under the supervision of carefully selected agency sponsors in conjunction with appropriate Clark faculty. Clark participates in the Washington Semester Program of American University in Washington, D.C., and the Washington Center for Internships and Academic Seminars. Students who participate in these programs spend a semester studying and/or working in the nation's capital.

Office of Study Abroad Programs

Clark University is well known for its international character and is committed to encouraging a strong Clark presence abroad and an international presence on campus. The Office of Study Abroad Programs coordinates international study programs. Clark has programs in the following countries: China, Great Britain, France, Germany, Israel, Japan, Spain, and Zimbabwe. Clark also has affiliated programs through the School of Field Studies in Kenya, the Caribbean, Australia, Mexico, Costa Rica, Palau, and Canada.

The Clark European Center in Luxembourg offers students and faculty additional opportunities for study and research abroad. A special feature of the program is the May Term, which begins right after the end of the spring semester. Clark faculty take groups of students to Luxembourg on a four-week academic program especially suited for Luxembourg and its environment.

Students who study abroad on a Clark program pay regular tuition, room, and board to Clark. Clark assumes responsibility for the students' academic programs and normal living expenses for the academic year. Students may earn up to a full year of credit through study abroad. Students interested in study abroad should consult the Office of Study Abroad Programs at 22 Downing Street or call (508) 793-7363 for more information.

International Students and Scholars Office

The International Students and Scholars Office serves over 600 international undergraduate, graduate and intensive English students, as well as research scholars and post-doctoral fellows. The Office assists students with Immigration and Naturalization Service regulations as well as personal and practical matters related to daily life in the United States, including pre-arrival material, orientation sessions, immigration documents, and employment authorization materials. In conjunction with the International Student Association, ISSO also provides a variety of social and educational programs to enhance the students' experience at Clark. ISSO links new students with families in the community to assist students in their adjustment to Worcester and the United States.

Army and Air Force ROTC

Clark University students may participate in Army and Air Force Reserve Officers' Training Corps at Worcester Polytechnic Institute.

U. S. citizens who are physically qualified, earn their degree from Clark University, and satisfactorily complete the ROTC program will be commissioned as second lieutenants in the U.S. Army or Air Force. Students may request an educational delay of active duty in order to attend graduate school. First-year and sophomore students can compete for two- and three-year scholarships, which are primarily based on academic performance and academic major. Students interested in Army ROTC should contact the Military Service Department at Worcester Polytechnic Institute. Students interested in Air Force ROTC should contact the Department of Aerospace Studies at WPI.

The Center for Holocaust Studies

The Center for Holocaust Studies provides vital national and international leadership in educating future generations of scholars. The Center, in conjunction with Clark's history department, offers the nation's first Ph.D. program specifically in Holocaust history. Clark also offers an interdisciplinary undergraduate program in Holocaust and genocide studies, which includes courses in history, literature, psychology, government, sociology, film, and music.

Clark is the first college or university anywhere to have two occupied fully-endowed, full-time tenured professorships in Holocaust History. Deborah Dwork, the Rose Professorship in Holocaust Studies and Modern Jewish History and Culture, serves as director of the Center. Robert Gellately holds the Strassler Family Chair for the Study of Holocaust History.

3/2 Engineering Program

The 3/2 engineering program consists of three years of studies at Clark followed by two years at an affiliated engineering school. The program leads to a bachelor of arts degree from Clark after four years and, after the fifth year, a bachelor of science in engineering from the engineering school. Clark offers 3/2 engineering programs with Columbia University, Washington University, and WPI.

Academic Advising

The Academic Advising Center helps students plan their academic programs through a coordinated set of activities and services. All new students are assigned a faculty advisor who helps them select courses and programs. Once a student has chosen a major, academic advising is coordinated by faculty within the student's major department.

Among the Academic Advising Center's support services are:

- The Writing Center: Recognizing the importance of writing in all fields, Clark offers cross-disciplinary, departmental, and special Writing Center programs. Supplementing the curriculum, Clark's Writing Center provides individual tutoring and noncredit workshops for all interested students. Writing Center offerings are flexibly designed to help students at all levels achieve clear, correct, graceful writing.
- The Special Needs Program: This program is designed to foster functional independence for students with special learning needs. Students with documented disabilities may enroll in this program. The director and staff offer advising and study skills assistance and help students negotiate reasonable accommodations. Testing and evaluation of learning disabilities are available. An early orientation for eligible first-year students is also part of this program.
- Learning Skills Program: Through group workshops and individual appointments, students may participate in time management, test taking, note taking, and test preparation programs to improve their study skills.

Other Academic Support Services

- The Math Center: The Center offers workshops and individual tutoring to help students gain mastery of mathematical and quantitative concepts and skills. The Center's services are available to all students, and are especially recommended for those taking the IDND17 course, formal analysis courses, and math courses from 113 and 119 up through calculus, science courses, and special social science methods and statistics courses.
- Language Arts Resource Center: The Center provides video and audio tapes as well as access to satellite broadcasts of international news and programs to assist students learning a foreign language. The center is located on the fourth floor of Goddard Library.
- Goddard Library Public Services—Reference Desk: Students working on research projects may receive assistance at the reference desk on the use of the extensive research resources of Clark University libraries as well as the Colleges of Worcester Consortium library system.
- Office of Information Systems (OIS): The Computing Center in Carlson Hall offers tutors by appointment to assist students in mastering Clark's computer network programming and word processing resources.

American Language and Culture Institute (ALCI)

ALCI serves as a resource for international undergraduates, graduate and Worcester-area community students for whom English is a second language. Training in English, orientation to American life and culture, and preparation for successful university study in the United States are important aspects of the ALCI program. Instruction is offered at up to five levels of proficiency: high beginning through academic preparation. Most courses are non-credit and are graded on the Pass(P)/No Record (NR) system. Classes are offered mornings, afternoons, and evenings during the fall, spring, and summer. Certificates are awarded upon successful completion of full- or part-time course work.

Colleges of Worcester Consortium

Clark is a member of the Colleges of Worcester Consortium, which means that Clark sophmores, juniors, and seniors can enroll for one course a semester at Anna Maria College, Assumption College, the College of the Holy Cross, Worcester Polytechnic Institute, Worcester State College, the University of Massachusetts Medical School, Tufts University Veterinary School, Becker College, or Quinsigamond Community College.

Consortium Gerontology Studies Program

The Worcester Gerontology Studies Program is offered through the Colleges of Worcester Consortium. Courses related to aging are available at various consortium colleges, reflecting the multidisciplinary nature of gerontology. This program provides courses and internships in a coordinated curriculum leading to a Certificate in Gerontology. Career planning for participating students is organized through the Consortium Office in coordination with on-campus career services.

For further information about the Gerontology Studies Program, contact Professor Deborah Merrill, Clark Department of Sociology, the program director.

First-Year Seminars

(Offered in 1998-99)

CHEM 070 PRESERVING GENOMES

In this laboratory-oriented course, DNA will be isolated from endangered, rare or exotic organisms selected by the students. The DNA will be cut into fragments and "cloned" using techniques involving recombinant DNA. As a result, the genes from the organism will be preserved as a library of fragments of DNA that are maintained in a population of bacteria. The "genomic library" will be submitted to a national repository, thereby preserving the genes of the endangered species. Fulfills the scientific perspective. Mr Thurlow.

CLAS/HIST 100: ANCIENT GREECE AND PERSEUS

An introductory survey of Classical Greek civilization using the Perseus Project as the primary resource. Perseus is an interactive CD-ROM and World Wide Web electronic library of ancient Greek texts (in English and in Greek) and of maps, plans, color images of sites and artifacts,etc. Students will become familiar with the Perseus resources; initially, members of the class will work through prearranged sequences of material, but they will eventually use Perseus for independent exploration and research. No previous knowledge of ancient Greece or of computing are required. Fulfills the history perspective requirement. Mr. Burke

ECON 100: WORLD POPULATION AND INDIVIDUAL WELL-BEING

Focuses on population and economics. Students gain an understanding of the factors determining and influencing population, and of the connection of population to individual well-being. Students will study the principles of economics; learn how to use the main Clark computer and demographic simulation software, and will acquire an appreciation for the role of population in society. Fulfills the comparative perspective requirement. Preference for enrollment in this seminar will be given to students in the International Studies Stream; others will be admitted as space allows. Mr. Weinrobe

EDUC 105: THE NATURE OF MORAL DEVELOPMENT

Examines the nature, basis and value of morality, both in theory and in its practical application. Students explore various points of view from social science and religion as they seek to define the nature of individual moral development. The impact of this development on the rest of the individual's behavior, such as on intelligence and self-concept, is also examined. A series of short papers is required in the course, both critically analyzing the readings and applying them to real-life situations and to quantitative data that students have collected over the past years of this course. Fulfills the values perspective requirement. Mr. Zern

EDUC 112/COMM 020: TRANSFORMATIVE SCHOOLING: CULTURE, EDUCATION, AND SOCIETY

A field-based exploration of urban schooling and the politics and promises of education reform. Students, in teams of three or four, will partner with a teacher from a nearby elementary

or middle school who is attempting to develop and pilot an innovative curriculum unit in social studies or science. Students will serve as research assistants observing, video taping and writing about the teaching and learning that takes place. Concurrently, seminar participants will read widely in the fields of eduction and society, ethnography, the culture of the classroom, and discourse analysis. Students will learn to be researchers and will write about their experiences (as part of a book being written about education reform jointly with these teachers), while at the same time learning about documentary video production with a Clark film professor and advanced film students. Fulfills the values perspective requirement and is recommended for students who plan to major in Communication and Culture. Ms. Michaels

ENG 109: THE ANATOMY OF POETRY

Many species communicate and therefore have languages, whether of sounds or gestures or both. But only humans are able to control language; for example, only a human can hear or read something never said or written before, and understand it. Literature is art made by relying on this human quality; and poetry is the genre of literature most constituted of particular words. This seminar is devoted to the intensive study of this art. The class will read and discuss poems in English from the Middle Ages to our own age by poets of different nationalities, genders and races. This seminar satisfies the poetry requirement for the English major and fulfills the verbal expression requirement. Mr. Sultan

ENG 130: THE AMERICAN DREAM

Focuses on the mythology of the American Dream—its history and development. Most important, it will critique that concept, which has become ingrained in the "American" psyche. It will offer a wide range of texts from Benjamin Franklin's "Autobiography" through Horatio Alger, Andrew Carnegie, F. Scott Fitzgerald, W. D. Howells, to contemporary examples, in an effort to trace the effects this myth has had on our culture from the 18th century to the present. Fulfills the Verbal Expression requirement. Mr. Elliott

ES 010: ENVIRONMENT AND CULTURE

Offered in four sections, this course presents a variety of perspectives on the environment, introducing major works in the humanities, the social sciences, and the sciences that have contributed to the emergence of an articulate environmental consciousness over the past 200 years. All sections of this course read, in common, both written texts and actual landscapes. All seek to construct an environmental history of the 19th and 20th centuries that considers human modifications of ecosystems; the evolution of ideas about the interrelation of nature, society, culture, and consciousness; the study of ecology as both a scientific practice and an idea with germinal implications to ethics and aesthetics. Writers studied include, among others, Henry David Thoreau, George Perkins Marsh, Charles Darwin, Aldo Leopold, Rachel Carson, Donald Worster, and Henry Beston. Field trips include Harvard forest (a research forest located in Petersham, Mass.) and Cape Cod (the National Seashore in Eastham, Mass.) While the seminar has a common core of readings and shared experiences (field trips; special lectures; films), each section has a different emphasis. One explores the relationship of visual art to the natural world and offers students the opportunity to undertake studio art projects. Two others examine landscape and social issues, while the fourth stresses gender, class, and cross-cultural perspectives on landscapes and ecologies. Fulfills the historical perspective requirement. Preference for enrollment in this seminar will be given to students in the Environmental School; others will be admitted as space allows. Ms. Crocker, Mr. Johnson, Mr. Mitchell, Ms. Rocheleau

GEOG 040: TECHNOLOGY AND SOCIAL CONTROVERSY

Examines the challenges in managing technology in post-industrial society, and the interaction between technological controversies and social and political institutions. Considers such technological controversies as the rise and fall of nuclear power, the growth of the Internet, technology and the global food supply, pesticides, and global communication systems in a culturally diverse world. Particular attention is given to means for reconciling technological advances with democratic society and for negotiating value disputes. Fulfills the values perspective requirement. Preference for enrollment in this Seminar will be given to students in the International Studies Stream; others will be admitted as space allows.
Mr. Kasperson/Offered Spring 1999

GEOG 075: LAND DEGRADATION AND SUSTAINABILITY

Land degradation describes a decline in biological productivity that may or may not be irreversible. For at least 10,000 years a principal activity of human culture has been to modify the landscape in order to provide food, shelter, and warmth. While degradation likely began with the human control of fire, advances in technology and the rapid increase in human population during the last century have magnified both the degree and the area of the Earth experiencing it. This course examines the history and current state of land degradation through an analysis of the linkages between the natural and human systems in a wide range of environmental, economic, and historical settings. In the process, the concept of environmental sustainability will be investigated. Fulfills the comparative perspective requirement. Mr. Lewis

HIST 033/AS 033: CONFUCIANISM, DAOISM, BUDDHISM: CULTURAL HERITAGE OF EAST ASIA

Confucianism, Daoism, and Buddhism have had a profound influence on the civilizations of East Asia. Through reading and discussing a selection of Confucian, Daoist and Buddhist (particularly Zen Buddhist) texts, students explore the social, political and religious values of China, Korea, Japan, and Vietnam, and assess the continuing relevance of these teachings today, both in East Asia and in the world. Fulfills the values perspective requirement. Preference for enrollment in this seminar will be given to students in the International Studies Stream; others will be admitted as space allows. Mr. Ropp

HIST 036: THE STRANGE WORLD OF THOMAS JEFFERSON

Thomas Jefferson is one of the most familiar and increasingly controversial figures in American history. Students will explore in depth two related subjects: Jefferson's life and career (with emphasis on the intersection of the public and the private), and Jefferson's reputation and image in American culture from his time to ours. By reading widely in recent scholarship on Jefferson, as well as in primary sources, students first attempt to come to grips with this fascinating and complex man in the context of his own times. They then explore how and why Jefferson has remained a subject of intense interest and controversy for later generations of Americans. During the final phase of the seminar students focus on a topic that nicely bridges those two broad areas of concern: Jefferson and slavery, including his alleged intimate relationship with his slave. Fulfills the historical perspective requirement. Mr. McCoy

HIST/ID 032: AFRICA'S TWENTY-FIRST CENTURY: THREE ALTERNATIVE MODELS

Considers how Africa will cope with challenges of the 21st century. Case studies drawing on experiences in Somalia, Botswana, and Malawi provide the opportunity to consider models of governance, agricultural/livestock production, role of village institutions, work of women's groups, environmental enhancement, and questions of security. Anthropological, political, and historical literature will supplement novels and videos from three countries. The instructor will introduce first-hand data and experience into the case materials. Fulfills the verbal expression requirement. Preference for enrollment in this seminar will be given to students in the International Studies Stream; others will be admitted on a space-available basis. Mr. Ford

PHIL 106: SCIENCE, RELIGION, AND REALITY

Addresses some basic issues in the Philosophy of Science and the Philosophy of Religion: "What is science?" "What is reality?" "How do science and religion differ with regard to the relative roles played by faith and evidence in establishing knowledge claims about reality?" "Does science provide better explanations than theology or literature?" "How do religious arguments for the existence of God differ from scientific arguments for the existence of black holes?" Special attention is given to developing students' abilities to read complex texts, write logically, think analytically, and argue cogently. Fulfills the verbal expression requirement. Mr. Derr

SOC 090 NO SWEAT!: THE NEW SWEATSHOPS IN GLOBAL CONTEXT

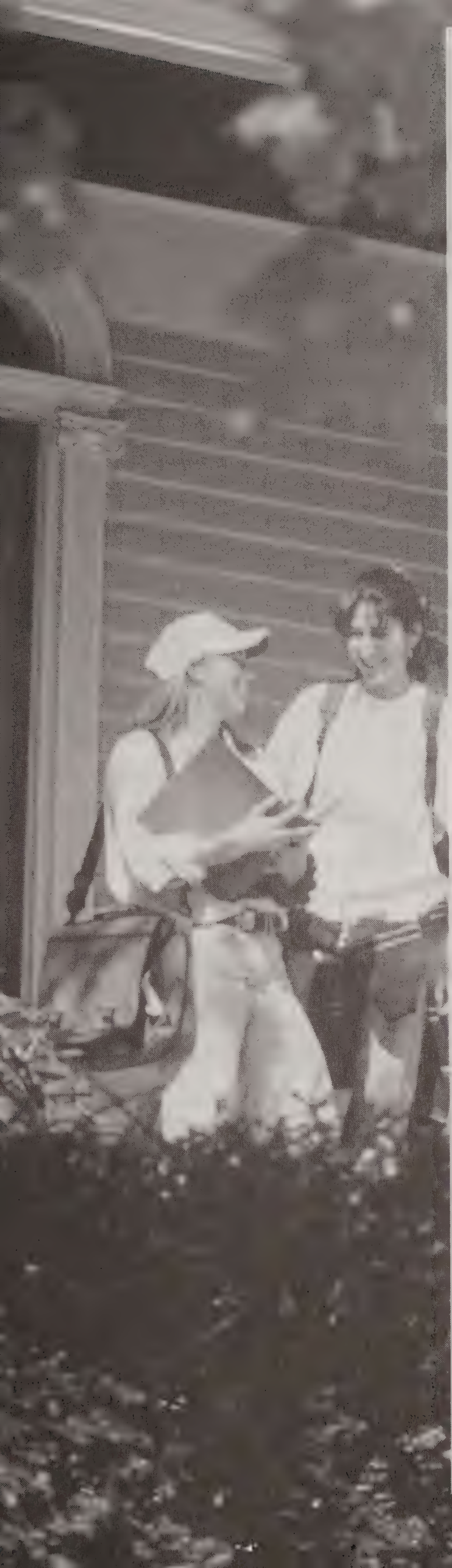
Low wages, long hours, and dangerous conditions characterized work in turn of the century sweatshops, especially in the garment industry. These conditions are back, characterizing up to half of the apparel industry. This seminar explores the rise and decline and the subsequent rise of the new sweatshops, with special attention to the ways in which child labor and super-exploitation in developing countries affects conditions here in the U.S., and what we can do about the problem. Fulfills the comparative perspective requirement. Preference for enrollment in this seminar will be given to the students in the International Studies Stream; others will be admitted as space allows. Mr. Ross

SPAN 152: HISPANIC LITERATURE OF POLITICAL COMMITMENT

Investigates the Hispanic writer's relationship to social and political upheaval in the 20th century, with emphasis on the moral and aesthetic problems posed by commitment to a political party or a revolutionary ideal. The course focuses on two historical periods: Spain in the 1930s (the Second Republic and the Civil War), and Latin America from 1959 to the present (the Cuban Revolution and its aftermath). Conducted in English. Fulfills the values perspective requirement. Preference for enrollment in this seminar will be given to students in the International Studies Stream; others will be admitted as space allows. Mr. Ferguson

V&PA 010: CATCHING THE LIGHT: MODES OF ARTISTIC EXPERIENCE

An introductory interdisciplinary course for students considering majoring in one of the fine arts: art history, music, screen studies, studio art, or theater. Students explore the dynamics of the creative experience in the arts while studying the writings and creations of artists, composers, film makers, and playwrights. Creative and collaborative projects introducing students to the artist community at Clark will be an important component of the course. The seminar will be team taught by two faculty members from the Visual and Performing Arts Department, who will organize trips to concerts, galleries, plays, and films throughout the region. Fulfills the aesthetic perspective requirement. Ms. Walker and Mr. Bailey



The Environmental School

For 75 years, Clark University has been addressing questions about the relationship between humankind and nature: What are the consequences of economic development, technological change, and population growth? Can the Earth's life-support systems continue to sustain us? What alternative value systems and ways of living are needed, and which are possible? How have the cultural and spiritual traditions of societies shaped their relationship with the natural world? What motivates individuals, groups, and institutions to change their behavior? How can technology improve environmental conditions on the Earth? What kind of society do we want in the future, and what kind is compatible with sustainability?

Protecting the environment, while at the same time promoting social and economic development, is one of the greatest challenges facing the world as we approach the 21st century. Responding effectively to dilemmas posed by accelerating pressures on the Earth and its inhabitants calls for innovative solutions and bold public policies. These can only be produced through the combined efforts of skilled professionals and informed citizen-leaders in a wide variety of fields, from environmental management, law, and medicine, to business, education, and the arts. Clark's Environmental School is designed to prepare a new generation of students for these important roles.

Overview of the Environmental School Curriculum

The Environmental School is not a major. Instead, it offers students the opportunity to gain a broad liberal arts education that focuses on the environment while also acquiring depth in a particular area by pursuing studies within a departmental major. Students generally begin their studies in the Environmental School at the start of their first semester at Clark, when they enroll in a special First-Year Seminar on Environment and Culture. Entry to the School is, however, possible at any point prior to the beginning of the sophomore year.

The core curriculum consists of seven interdisciplinary courses in addition to the First-Year Seminar. These courses, which satisfy seven of the requirements of Clark's Program of Liberal Studies, are taken over the first three years. Only one PLS requirement, the language and culture perspective, is not satisfied through the School's core curriculum. Several core courses include field trips and hands-on field studies at such locations as a nature sanctuary and salt marsh at the Cape Cod National Seashore and the Tower Hill Botanic Garden, a premier Massachusetts horticultural center that overlooks the Wachusett Reservoir Watershed.

Core Curriculum Courses

Required

ES 010	Introductory Seminar: Environment and Culture	HP

All Three Required

ES 121	Earth Systems Science	SP
ES 122	Ecological Systems	SP
ES 123	Environmental Ethics	VP

One of the Following Required

ES 141	Science, Uncertainty and Decisions	FA
ES 142	Data, Uncertainty and Information	FA
ES 143	Biosphere-Atmosphere Interactions*	SP
ES 144	Energy and the Campus*	SP
ES 145	Statistical Methods in Environmental Economics	FA

One of the Following Required:

ES 210	Sacred Space	AP

Other designated studio art or art history courses (see the course listing)

Two of the Followed Required

ES 180	The Earth Transformed	VE
ES 211	Forest and Wilderness: Values and Uses	CP
ES 212	Environmental Policy and Management	CP

*Students taking this course also automatically satisfy the PLS Formal Analysis requirement.

Pursuing a Major Within the Environmental School

Participating major departments and programs offer at least two advanced courses that are thematically linked to the School's curriculum. As of fall 1998, the following majors can be pursued within the Environmental School: Art History, Biology, Chemistry, Comparative Literature, Computer Science, Economics, English, Environmental Science and Policy, Geography, Government, History, International Development, Management, Philosophy, Physics, Sociology, and Studio Art.

Requirements for a Major

Students pursuing a major within the Environmental School are required to:

- Complete the core ES curriculum
- Complete the regular requirements for the major
- Take at least one specially designed advanced course in that major, which satisfies the major requirements and is thematically linked to the School's mission
- Satisfy the capstone requirement within the individual major, choosing an environmental theme.

Listings of the appropriate advanced courses within the majors can be obtained from the Environmental School Office or from the individual departments. Some illustrative examples are:

Ecology (biology)
Ecology and Economy of the Third World (international development)
Environmental Economics (economics)

Environmental Chemistry (chemistry)
Seminar in Environmental Ethics (philosophy)
Environmental Law (government)
Management of Environmental Pollutants (environmental science & policy)
Land Degradation (geography)
Sacred Space (studio art)
Sociology of the Environment (sociology)
Studies in Landscape (English)
History of the American West (history)

Various courses within the ES core curriculum may also fulfill some requirements for individual majors. Contact your faculty advisor for details.

Internships and Research Opportunities

Environmental School students have many opportunities for obtaining environmental internships off-campus and conducting research with Clark faculty in most departments, including working in the newly established Environmental Analysis Laboratory and Environmental Computer Monitoring Facility. For more information, contact the Environmental Internship Office located in Room B404 in the Bio/Physics Building or call 793-7375.

Core Courses

The Environmental School courses are open to all Clark students. However, since class sizes are generally small, only students enrolled in the Environmental School are guaranteed spaces in these courses.

ES010 INTRODUCTORY SEMINAR: ENVIRONMENT AND CULTURE

Emphasizes the multiplicity of ways of conversing about the environment, and introduces students to three types of literacy in thinking about human-environment relationships: belletristic, description of nature, and scientific discourse. The course is structured around a set of major books from various genres of scholarship. Satisfies the historical perspective. Mr. Conron, Mr. Mitchell, Mr. Johnson, Ms. Crocker, Ms. Rocheleau/Offered every year

ES121 EARTH SYSTEMS SCIENCE/ LECTURE, LABORATORY

Considers the basic principles of physical and historical geology, atmospheric science, and the global biogeochemical cycles. Topics covered include planetary geoscience, the formation of earth and earth materials, atmospheric and hydrologic processes, plate tectonics, volcanism, mountain building, plutonism, metamorphism, diagenesis, stratigraphy, geochronology, radiometric dating, paleontology, glaciology, shoreline processes, and landform evolution under contrasting climatic conditions. Involves weekly field trips and laboratory sessions involving the Clark University geological collection. Satisfies the science perspective. Mr. Herwitz/Offered every year

ES122 ECOLOGICAL SYSTEMS

Introduces the major paradigms of ecological science and practice—population, community, landscape, and human ecology. This course examines ecosystems, including humans, on local and regional levels but with links to the global level. The objective of the course is to ground students in ecological theory and methods, and to explore the human roles in the evolution, maintenance, and destruction of ecosystems. Satisfies the science perspective. Computer lab is included. Ms. Foster, Ms. Rocheleau/Offered every year

ES123 ENVIRONMENTAL ETHICS

Considers a number of ethical and public policy issues which arise for and within contemporary health care around two themes: the reemergence of tropical diseases as a serious public health threat, and the interest of governments and others in influencing individual reproductive decisions in light of national population policies. Readings are drawn from a variety of philosophical, sociological, epidemiological, biological, historical, and theological sources. In considering issues related to the reemergence of tropical diseases, particular emphasis will be given to the systematic question of mankind's interaction with the environment. Mr. Derr/Offered every year

ES141 SCIENCE, UNCERTAINTY, AND DECISIONS

Introduces the use of science information in making public and private choices under uncertainty, focusing on environmental themes. Applications of probability, statistics, extrapolation, risk assessment, and computer models are included. This course contrasts public demand and expectations with scientific capabilities and methods. A lab using computers and exploring science in contemporary debate is required. Satisfies the formal analysis requirement. Mr. Goble/Offered every year

ES142 DATA, UNCERTAINTY, AND INFORMATION

Explores approaches to obtaining useful information from economic data. It is designed particularly for students in the humanities and social sciences without previous formal analysis courses. The goals of the course are to provide skills for the critical understanding of the quantitative arguments on environmental issues and an enhanced level of understanding of the way in which scientific arguments are developed. Satisfies the formal analysis requirement. Mr. Puffer/Offered every year

ES144 ENERGY AND THE CAMPUS

Introduces the several ways that Clark University uses energy. Students will gather data about energy supply, end-use and associated costs. With this in hand, students will be asked to identify ways of achieving greater energy efficiency, lower costs, and small environmental impacts. Satisfies the science perspective. Mr. Blatt, Mr. Hohenemser/Offered every year

ES 145 STATISTICAL METHODS IN ENVIRONMENTAL ECONOMICS

Examines basic concepts and techniques of statistical method in economic analysis using environmental decisions as the basis for problem solving: descriptive statistics, probability theory, sampling distribution, standardized normal distribution and other related distributions, simple and multiple regression, simple forecasting, and statistical decision making. Mr. Puffer/Offered every year

ES180 EARTH TRANSFORMED BY HUMAN ACTION

Traces the course of human modification and transformation of the earth since antiquity, but with particular emphasis on the first 300 years. Integrating history, geography, and other fields, it examines the changing kind, pace, and magnitude of alterations and explores interpretations of their causes. Satisfies the verbal expression. Mr. Turner/Offered every year

ES210 SACRED SPACE

Explores traditional and contemporary experience of the sacred in spatial terms: through archetypes (cave, mountain, threshold, mandala), geometric harmonies, the relationship between nature and architecture (geomancy or Seng-Shui), and the natural world as Gaia or sacred geography. Satisfies the aesthetic perspective. Ms. Buie/Offered every year

ES 211 FOREST AND WILDERNESS: VALUES AND USES

Examines how individuals and groups perceive and evaluate nature and the factors that motivate them to mobilize and protect it. The course will use and critique economic, sociological, and geographic approaches to the preservation and use of North American wilderness and old growth forests, tropical rain forests, biodiversity, and individual animal species. The course will pay special attention to the role cultural and class differences play in resource conflicts. Satisfies the comparative perspective. Mr. Mitchell, Ms. Geoghegan/ Offered every year

ES 212 ENVIRONMENTAL POLICY AND MANAGEMENT

The central goal of this course is to understand the physical, technological, political, and historical factors that shape both the emergence of environmental problems and the policies and regulatory structures that develop in response to those problems. To provide a concrete focus, we will consider the case of coal—its mining, processing, and use. Mr. Cook, Ms. Emel/Offered every year

Additional courses in Visual and Performing Arts also satisfy the Aesthetic Perspective of the Environmental School Curriculum. Please consult the Environmental School Administrative Assistant for course listings by calling 793-7655 or by stopping by the office, Sackler Sciences Center, Bio/Physics Building, B/P 356.

Participating Faculty

Halina S. Brown,
Director of the Environmental School
and Chair, Environmental Science & Policy
Sarah D. Buie, *Visual and Performing Arts*
S. Leslie Blatt, *Physics*
John J. Conron, *English*
Brian J. Cook, *Government*
Elli Crocker, *V&PA*
Patrick G. Derr, *Philosophy*
Jacque L. Emel, *Geography*
Susan Foster, *Biology*
Jacqueline Geoghegan, *Economics*
Robert L. Goble, *Environmental Science & Policy*
Joseph Golec, *Management*
Bonnie Grad, *V&PA*
Stanley R. Herwitz, *Geography*
Christoph Hohenemser, *Environmental Science & Policy*
Douglas L. Johnson, *Geography*
Roger E. Kasperson, *Geography*
Todd P. Livdahl, *Biology*
Bruce London, *Sociology*
Robert C. Mitchell, *Geography*
Donald Nelson, *Chemistry*
Frank W. Puffer, *Economics*
Dianne E. Rocheleau, *Geography*
Joseph Sarkis, *Management*
Billie Lee Turner, *Geography*
Sarah Walker, *V&PA*
Walter Wright, *Philosophy*

Marcia V. Szugda, *Administrative Assistant*

Note: Other faculty members from a number of departments also contribute courses to the Environmental School and/or are actively engaged in research on environmental topics.

International Studies Stream

The International Studies Stream (ISS) is an innovative option within Clark's Program of Liberal Studies that offers students the opportunity to structure their broad liberal arts education by focusing on international themes and issues.

To succeed in contemporary society, students must be familiar with the ways common problems—such as economic growth, immigration, social welfare, environmental regulation—are dealt with differently across the globe. They need to understand the historical, social, and political foundations for these differences, and they need to be able to assess their own societies within an international context.

The ISS helps students understand the implications of global integration for cultural identity, economic growth, peace, security, and development. Language and cultural studies provide the skills necessary for effective participation in the global economy.

The ISS infuses students' educational experiences with an international perspective. Through courses, guest speakers, internships, and study abroad opportunities, the Stream provides the broad-based international experience students will need in our increasingly global society.

A flexible curriculum

The foundation of the ISS is a set of courses with an international focus and enhanced language training designed to place the experience of the United States and other countries in global context.

The curriculum incorporates the best elements of undergraduate teaching: team-taught interdisciplinary courses; small classes taught in seminar format; genuine language proficiency, developed in part through study outside the U.S.; extension of academic activities beyond the classroom through field trips, speakers programs, and other informal activities; and careful mentoring of students.

The ISS recognizes that success in most careers now requires international perspective and language skills. The ISS curriculum can be combined with any major, and is flexible enough to address the educational needs of aspiring bankers, journalists, attorneys, physicians, grassroots organizers, and many others.

International Studies Stream Requirements

Students in any major may participate in the International Studies Stream. The program is intended to provide focus for a student's studies rather then to impose many additional requirements. The Stream includes a broad range of courses and extracurricular activities from which students can select to create an appropriate, challenging program of study. Successful completion of the Stream will be designated on students' transcripts.

Requirements for the Stream are:

- **The core course:** IDND 066 Citizenship in Global Society—The globalization of cultural, economic, and political life is one of the defining modernist themes of the 20th century. The signs of international interdependence are everywhere, from the rise of Japanese automobile factories in the heartland of the United States to the success of Hollywood movies in eastern Europe and beyond. And yet in the midst of the apparent triumph of globalization, diverse examples of fragmentation and local action and initiative also capture our attention. The great international institutions of the 20th century—the United Nations, the World Bank, and the new World Trade Organization—are also challenged by ethnic nationalism, economic protectionism, and growing introspection on the part of many countries. This course provides a widely ranging introduction to these twin themes of global and local action, and serves as the foundation for study within the International Studies Stream at Clark University.
  Staff/Offered every year
- **A First-year Seminar with an international focus**—ISS students choose from several First-year Seminars during their first semester at Clark. (Students who apply for admission to the ISS after they matriculate at Clark may receive permission to take the first-year seminar in their sophomore year.) These courses include no more than 15 students and allow participants to focus on an academic area in depth. The course instructor serves as the academic advisor for all students in the course. See course descriptions at the end of this section for a sample of ISS First-year Seminars offered in the 1998–99 academic year.
- **Program of Liberal Studies (PLS) requirements**—All Clark undergraduates are required to complete eight PLS courses: a verbal expression course, a formal analysis course, and six perspectives courses. Students in the International Studies Stream automatically satisfy at least four of the eight PLS requirements by taking internationally focused courses in the aesthetic perspective, comparative perspective, historical perspective, language and culture perspective, and values perspective. Students may fulfill the verbal expression requirement in or out of the Stream; the formal analysis and scientific perspective requirements are not part of the Stream. See the perspectives course listings at the end of this section.
- **Expanded foreign language proficiency**—Beyond the PLS Language and Culture Perspective requirement, ISS students complete two additional semesters of language study or demonstrate competence equivalent to two years of language study at the college level. Clark offers courses in French, Spanish, German, Russian, Japanese, Chinese, and Hebrew. Proficiency tests for other languages can be arranged.

- **Study abroad experience**—U.S. students in the ISS complete at least one unit of study outside the United States. They may participate in a semester or year-long study abroad program; a May Term or Summer course, or an internship. Financial aid for some study abroad programs is available for qualified students. Study abroad sites include Zimbabwe (the newest site to be established), Great Britain, France, Germany, Israel, Japan, Spain, Kenya, the Caribbean, Australia, Mexico, Costa Rica, Palau, and Canada. International students, whose study abroad experience is at Clark, complete an internship with an international agency in the U.S., or a research project focused on an international issue.

Courses

IDND 066

See course description above. Fulfills the historical perspective requirement.

SOC 090 NO SWEAT!: THE NEW SWEATSHOPS IN GLOBAL CONTEXT/FIRST-YEAR SEMINAR

Low wages, long hours, and dangerous conditions characterized work in turn of the century sweatshops - especially the garment industry. These conditions are back, characterizing up to half the apparel industry. This seminar will explore the rise and decline and then the rise of the new sweatshops, with special attention to the ways in which child labor and super-exploitation in developing countries effects conditions here in the U.S., and what we can do about the problem. Among the projects of the course will be a Sweatshop Web Page to be posted on the World Wide Web. Mr. Ross/Offered every year

SPAN 152: HISPANIC LITERATURE OF POLITICAL COMMITMENT/FIRST-YEAR SEMINAR

This seminar investigates the Hispanic writer's relationship to social and political upheaval in the twentieth century, with emphasis on the moral and aesthetic problems posed by commitment to a political party or a revolutionary ideal. The course will focus on two historical periods: Spain in the 1930's (the Second Republic and the Civil War), and Latin America from 1959 to the present (the Cuban Revolution and its aftermath). Conducted in English. Knowledge of Spanish is NOT a requirement, but students who are proficient in that language will be given assignments commensurate with their abilities. Fulfills the Values Perspective requirement.
Mr. Ferguson/Offered periodically

ECON 100: WORLD POPULATION AND INDIVIDUAL WELL-BEING/FIRST-YEAR SEMINAR

In the time it takes to read this course description the world population will have increased by about 167 people. Almost all of that increase will be in the countries of the less-developed or developing world, which already include about 80 percent of the world's people. The more developed world, by contrast, has essentially reached a stage of zero population growth. This seminar focuses on population and economics. We will seek to gain an understanding of the factors determining and influencing population and of the connection of population to individual well-being. In the process we will study principles of economics, learn how to use the main Clark computer and demographic simulation software, and acquire an appreciation for the role of population in society. Fulfills the Comparative Perspective requirement. Mr.Weinrobe/Offered periodically

GEOG/ID 179 INTERNATIONAL POLITICAL ECOLOGY/FIRST-YEAR SEMINAR

Encourages students to look at global environment and development issues through the eyes of people whose lives and livelihoods are at stake in processes of economic and ecological change. The overall perspective of the course is a fusion of applied ecology and political economy (political ecology). Fulfills the comparative perspective requirement. Ms. Rocheleau/ Offered regularly

HIST 033/AS 033: CONFUCIANISM, DAOISM, BUDDHISM: CULTURAL HERITAGE OF EAST ASIA/FIRST-YEAR SEMINAR

Explores the most important intellectual traditions of East Asia—Confucianism, Daoism and Buddhism. Through reading and discussing a

selection of Confucian, Daoist and Buddhist (particularly Zen Buddhist) texts, students will explore the social, political and religious values of China, Korea, Japan, and Vietnam, and will assess the continuing relevance of these teachings today, both in East Asia and in the world. Fulfills the Values Perspective requirements.
Mr. Ropp/Offered periodically

HIST 037 AFRICA'S 21ST CENTURY: THREE ALTERNATIVE MODELS/FIRST-YEAR SEMINAR
Considers how Africa will cope with challenges of the 21st century. Case studies in Somalia, Botswana, and South Africa provide the opportunity to consider models of governance, agricultural/livestock production, role of village institutions, work of women's groups, environmental enhancement, and questions of security. Anthropological, political, and historical literature will supplement novels and videos from three countries. Fulfills the verbal expression requirement.
Mr. Ford/Offered periodically

PSTD 120 INTERNATIONAL CONFLICT MANAGEMENT/FIRST-YEAR SEMINAR
Conflict, like fire, is not bad in itself. It can lead to needed transformations that may not occur when conflict is stifled. Yet conflict often rages out of control. In this seminar we will study the dozens of international conflicts that are occurring today. We will examine what factors influence the course of conflicts, and what strategies help to contain them. Fulfills the comparative perspective requirement.
Mr. DeRivera/Offered periodically

ISS Perspectives Courses

The following courses are approved for credit in the International Studies Stream. See department listings for course descriptions.

Aesthetic Perspective

ARTH 010/011 INTRODUCTION TO THE HISTORY OF ART
Mr. Townsend/Offered every year

ARTH 155 ART OF AFRICA, OCEANIA, AND NATIVE AMERICA
Ms. Borgatti/Offered every year

ARTH 156 ART OF BLACK AFRICA
Ms. Borgatti/Offered every year

ARTH 160 ARTS OF ASIA
Mr. Bailey/Offered every other year

ARTH 161 ARTS OF ISLAM
Mr. Bailey/Offered every other year

CMLT/SCRN 121 SURVEY OF INTERNATIONAL FILM MOVEMENTS
Mr. D'Lugo/Offered every other year

CMLT/SCRN 146 INTRODUCTION TO CINEMA IN SPAIN
Mr. D'Lugo/Offered every other year

MUSC 011 WORLD MUSIC
Ms. Dusman/Offered every other year

SCRN 101 INTRODUCTION TO SCREEN STUDIES
Mr. Benelli/Offered every semester

SCRN/SPAN 148 INTRODUCTION TO CINEMA IN LATIN AMERICA
Mr. D'Lugo/Offered every other year

SCRN/FREN 163 HISTORY OF FRENCH CINEMA BEFORE WORLD WAR II
Ms. Butzel/Offered every other year

TA 150/151 THEATER IN WESTERN CIVILIZATION
Mr. Schroeder/Offered every other year

Comparative Perspective

CIGP 161 CULTURAL IDENTITIES AND GLOBAL PROCESSES
Ms. Bhachu/Offered every year

CMLT 130 THE NATIONAL IMAGINATION
Staff/Offered every year

ECON 010 ECONOMICS: A COMPARATIVE APPROACH
Staff/Offered every semester

ECON 100 THE GLOBAL ECONOMY
Mr. Bernhofen/Offered periodically

ECON 177 CHINESE AND JAPANESE ECONOMIES
Mr. Hsu/Offered every other year

FREN/ID 158 THE FRENCH-SPEAKING WORLD
Ms. Kaufmann/Offered every other year

GEOG 016 INTRODUCTION TO INTERNATIONAL ECONOMIES
Mr. Peet/Offered every year

GEOG 030 IMMIGRANTS AND THE CITY: THE WORLD COMES TO WORCESTER
Ms. Hanson/Offered periodically

GEOG/ID 127 POLITICAL ECONOMY OF UNDERDEVELOPMENT
Mr. Peet/Offered every year

GEOG/ENV 157 TECHNOLOGY AND SOCIAL CHANGE
Mr. Mitchell/Offered every year

GEOG 170 DIVIDED CITIES, CONNECTED LIVES
Ms. Hanson/Offered every other year

GEOG 179/ID 174 INTERNATIONAL POLITICAL ECOLOGY
Ms. Rocheleau/Offered every other year

GOVT 070 INTRODUCTION TO COMPARATIVE POLITICS
Ms. Enloe/Offered every year

GOVT 208 COMPARATIVE POLITICS OF WOMEN
Ms. Enloe/Offered every other year

HIST 124 ETHNICITY AND NATIONALISM IN MODERN EUROPE
Mr. Borg/Offered every year

HIST 251 COMPARATIVE STUDY OF REVOLUTIONS: THE FRENCH REVOLUTION OF 1789 AND THE BEGINNINGS OF MODERN REVOLUTIONS
Mr. Lucas/Offered every other year

ID/PSTD/HIST 050 LOCAL ACTION GLOBAL CHANGE
Mr. Ford, Ms. Thomas-Slayter/Offered every year

ID 120 INTRODUCTION TO SOCIAL ANTHROPOLOGY
Staff/Offered regularly

ID/GEOG/GOVT/HIST/PSTD 125 DEVELOPMENT PROBLEMS
Ms. Thomas-Slayter/Offered every year

ID 212 WOMEN AND SOCIAL CHANGE
Ms. Thomas-Slayter/Offered every other year

PSTD 120 INTERNATIONAL CONFLICT MANAGEMENT
Mr. DeRivera/Offered periodically

SOC 100 INTRODUCTION TO SOCIOLOGY
Staff/Offered every semester

SOC 256 CLASS, STATUS, AND POWER
Ms. Tenenbaum, Mr. Ross/Offered every semester

Historical Perspective

HIST/GOVT/ID 103 AFRICA AND THE WORLD
Ms. Grier/Offered every semester

HIST 062 WAR AND PEACE IN THE MIDDLE EAST
Mr. Little/Offered periodically

HIST 070/071 OUR EUROPEAN ROOTS
Mr. Lucas/Offered every year

HIST 080 INTRODUCTION TO MODERN ASIA
Mr. Ropp/Offered every other year

HIST 084 JAPANESE CIVILIZATION
Staff/Offered periodically

HIST 177 LATIN AMERICA SINCE 1825
Staff/Offered periodically

HIST/AS 181 CHINESE CIVILIZATION
Mr. Ropp/Offered every other year

HIST 182 MODERN CHINA: 1880 TO THE PRESENT
Mr. Ropp/Offered every other year

HIST 184 MODERN JAPAN
Staff/Offered every other year

HIST 250 THE FORMATION OF THE MODERN STATE
Mr. Lucas/Offered every other year

HIST 255 GLOBAL RELATIONS: 20TH CENTURY
Mr. Richardson/Offered periodically

HIST 263 ASIANS AND AFRICANS IN EUROPEAN HISTORY
Mr. Richardson/Offered periodically

IDND 066 CITIZENSHIP IN GLOBAL SOCIETY
Staff/Offered every year

Language and Culture Perspective

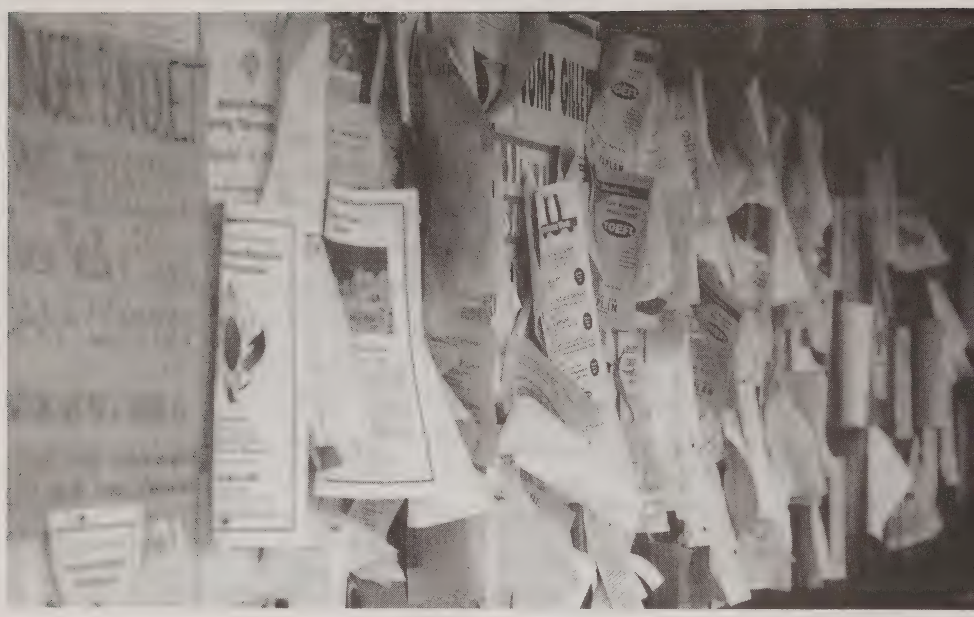
CHIN 101/102 INTRODUCTORY CHINESE
Staff/Offered every year

COMM/FREN 136 STUDIES IN FRENCH CULTURE: IDENTITIES AND DIFFERENCE
Ms. Kaufmann/Offered every year

FREN 101/102 ELEMENTARY FRENCH I, II
Mr. Spingler/Offered every year

FREN 103 ELEMENTARY FRENCH INTENSIVE
Staff/Offered every year

FREN 105/106 INTERMEDIATE FRENCH I, II
Mr. Spingler, Ms. Butzel/Offered every semester



FREN 120 Ways of Writing, Ways of Speaking
Ms. Kaufmann/Offered every year

GERM 101/102 Introductory German
Mr. Kaiser/Offered every year

GERM 103/104 Intermediate German I, II
Mr. Hughes/Offered every year

GERM 131 Spoken and Written German
Mr. Kaiser/Offered every year

GERM 134 Workshop in Translation
Mr. Hughes/Offered every year

GERM 140 Modern German Prose
Mr. Hughes/Offered every other year

GERM 156 The Modern German Short Story
Mr. Hughes/Offered every other year

HEBR 101/102 Elementary Hebrew I, II
Ms. Barone/Offered every year

HEBR 103/104 Intermediate Hebrew I, II
Ms. Barone/Offered every year

HEBR 105 Advanced Hebrew
Ms. Barone/Offered periodically

HEBR 199 Advanced Topics
Ms. Barone/Offered periodically

JAPN 101/102 Elementary Japanese I, II
Ms. Aoki/Offered every year

JAPN 103/104 Intermediate Japanese I, II
Ms. Aoki/Offered every year

JAPN 105 Advanced Japanese
Ms. Aoki/Offered every year

RUSS 101/102 Introductory Russian
Ms. Macauley/Offered every year

RUSS 103/104 Intermediate Russian
Ms. Macauley/Offered every year

RUSS 299 Advanced Topics—Russian Literature and Grammar
Ms. Macauley/Offered periodically

SPAN 101/102 Elementary Spanish
Staff/Offered every semester

SPAN 103 Elementary Spanish Intensive
Staff/Offered every semester

SPAN 105/106 Intermediate Spanish
Staff/Offered every semester

SPAN 127 Practice in Oral and Written Spanish
Staff/Offered every semester

SPAN 131 Readings in Hispanic Literatures
Staff/Offered every year

Values Perspective

HIST 272 19TH- AND EARLY 20TH-CENTURY EUROPEAN VALUES (CIRCA 1800–1930)
Mr. Lucus/Offered every other year

GOVT 205 ROOTS OF POLITICAL THOUGHT
Mr. Klein/Offered every year

GOVT 206 RECENT POLITICAL THEORY
Mr. Klein/Offered every year

HIST 033 CONFUCIANISM, BUDDHISM: CULTURAL HERITAGE OF EAST ASIA
Mr. Ropp/Offered periodically

ID/GOVT 232 SOCIAL JUSTICE, HUMAN RIGHTS, AND DEVELOPMENT
Staff/Offered periodically

PHIL 105 PERSONAL VALUES
Staff/Offered every semester

PHIL 107 AIDS: ETHICS AND PUBLIC POLICY
Mr. Derr/Offered periodically

PHIL/PSTD 130 MEDICAL ETHICS
Mr. Derr/Offered every semester

PHIL 132 SOCIAL AND POLITICAL ETHICS
Ms. Thomas, Ms. DeCew/Offered every semester

PHIL 150 PHILOSOPHY OF RELIGION
Mr. Wright/Offered periodically

PHIL 221 SOCIAL AND POLITICAL PHILOSOPHY
Ms. DeCew/Offered every other year

PSTD 170 INTRODUCTION TO PEACE STUDIES
Mr. DeRivera/Offered every year

SOC 204 THE HOLOCAUST: A STUDY OF GENOCIDE
Ms. Tenenbaum/Offered every year

SPAN 152 HISPANIC LITERATURE OF POLITICAL COMMITMENT
Mr. Ferguson/Offered periodically

Verbal Expression

CMLT 125 CROSSING BOUNDARIES
Ms. Kaufmann/Offered periodically

GERM/CMLT 188 THE CULTURE OF THE WEIMAR REPUBLIC
Mr. Schatzberg/Offered periodically

HIST 032 AFRICA'S 21ST CENTURY: THREE ALTERNATIVE MODELS
Mr. Ford/Offered regularly

Participating Faculty

David P. Angel, Ph.D., *geography: urban/economic geography, social theory*

Michael Bamberg, Ph.D., *psychology: first and second language acquisition, narratives, discourse analysis, cross-linguistic/cross-cultural comparison*

Daniel Bernhofen, Ph.D., *economics: international economics*

Parminder Bhachu, Ph.D., *Henry R. Luce Professor of Cultural Identity and Global Processes: construction of identities and ethnicities, immigration diasporas, women and wage labor markets, nationalist churches and global processes*

Joseph DeRivera, Ph.D., *psychology: the structure and function of different emotions, the relationships between emotion and action, the social psychology of peace and justice*

Carol D'Lugo, Ph.D., *foreign languages and literatures: Spanish and Spanish American narrative, literary theory*

Marvin D'Lugo, Ph.D., *foreign languages and literatures and screen studies: Hispanic literature and film, narrative theory*

Linda Dusman, D.M.A., *music: theory, composition, computer music*

Cynthia Enloe, Ph.D., *government and international relations: women and politics, militarization, Asian politics, British politics, ethnic and racial politics*

William Ferguson, Ph.D., *foreign languages and literatures: Spanish Golden Age literature, 20th-century Hispanic literature*

Richard Ford, Ph.D., *history and international development: African history, international development*

Beverly Grier, Ph.D., *government and international relations: African politics, international development, women's studies, U.S. black politics*

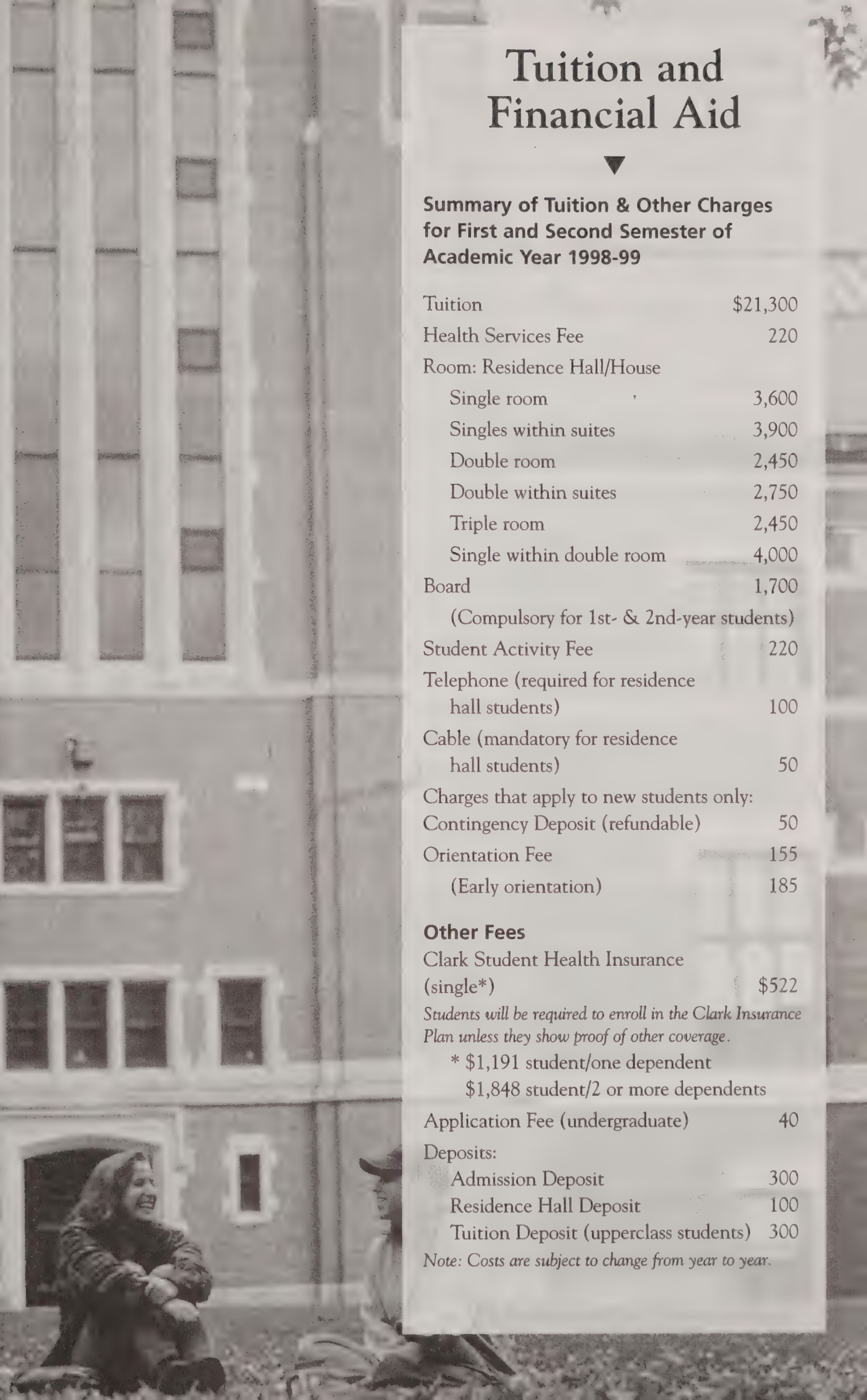
Robert Hsu, Ph.D., *economics: economic development, comparative economic systems, international economics*

Dorothy Kaufmann, Ph.D., *foreign languages and literatures: French literature, feminism and women writers, autobiography, French and Francophone cultural studies*

Bradley Klein, Ph.D., *government and international relations: political theory, international relations, U.S. foreign policy, politics of the media*
Douglas Little, Ph.D., *history: U.S. diplomatic history, U.S. 20th-century history*
Bruce London, Ph.D., *sociology: technology and society, community, sociology of the Third World, social demography*
Richard Peet, Ph.D., *geography: political economy of development, social theory, geography of consciousness*
Ronald Richardson, Ph.D., *history: European cultural history, British history and British Empire*
Dianne Rocheleau, Ph.D., *geography: cultural/political/systems ecology, gender, forestry and agriculture, environment/development*
Paul Ropp, Ph.D., *ISS director history: Chinese, social, and intellectual history*
Robert Ross, Ph.D., *sociology: urban studies, political sociology, political economy, social policy*
Walter Schatzberg, Ph.D., *foreign languages and literatures and comparative literature: age of Goethe, German expressionism in literature and the arts, German cinema, relations between literature and science*
Barbara Thomas-Slayter, Ph.D., *international development and social change: local institutions and organizations, women and public policy, peasant-state relations, gender issues*
Robert Vitalis, Ph.D., *government and international relations: international relations, political economy, Middle East politics*
Maurice Weinrobe, Ph.D., *economics: monetary economics, economics of population*

Note: In addition to the above faculty, who teach regularly in the program, other faculty members from a number of departments are active participants in the International Studies Stream, have research interests in this area, and offer courses that include a significant international component.

For more information about the International Studies Stream, contact
Paul Ropp, Director of the ISS,
Clark University, 950 Main Street, Jefferson Academic Center, Room 220, Worcester, MA 01610. 508-793-7181.



Tuition and Financial Aid

▼

Summary of Tuition & Other Charges for First and Second Semester of Academic Year 1998-99

Tuition	$21,300
Health Services Fee	220
Room: Residence Hall/House	
Single room	3,600
Singles within suites	3,900
Double room	2,450
Double within suites	2,750
Triple room	2,450
Single within double room	4,000
Board	1,700
(Compulsory for 1st- & 2nd-year students)	
Student Activity Fee	220
Telephone (required for residence hall students)	100
Cable (mandatory for residence hall students)	50
Charges that apply to new students only:	
Contingency Deposit (refundable)	50
Orientation Fee	155
(Early orientation)	185

Other Fees

Clark Student Health Insurance (single*)	$522

Students will be required to enroll in the Clark Insurance Plan unless they show proof of other coverage.

* $1,191 student/one dependent
$1,848 student/2 or more dependents

Application Fee (undergraduate)	40
Deposits:	
Admission Deposit	300
Residence Hall Deposit	100
Tuition Deposit (upperclass students)	300

Note: Costs are subject to change from year to year.

General Information

Tuition, board, residence hall charges, and certain fees are due and payable prior to the beginning of each semester. The dates for 1998-99 are: Aug. 1, 1998 for Semester 1 and Jan. 1, 1999 for Semester 2. Students are not permitted to register for any semester until all financial obligations have been arranged satisfactorily with the University.

A Budget Payment Plan is available and is explained later in this section.

There is a late fee of $25 assessed against all accounts not paid in full by the August and January due dates. In addition, interest at the rate of 1 percent per month (12.7% APR) will be charged on all past due balances (including tuition deposit).

Payment Options

Clark offers several payment alternatives to the usual tuition payment each semester. These options may be used individually or in combination with each other to best suit the needs of Clark families.

1. **Family Education Loan:** Clark University is one of a few schools to offer this fixed-rate, supplemental education loan. This loan allows families to borrow up to the full cost of education at a low fixed interest rate. In addition, the loan may be secured with home equity to allow for possible tax benefits. A variable rate option is also available. Contact the Office of Financial Assistance for details.
2. **Monthly Payment Plan:** Clark University, in cooperation with Academic Management Services, makes available a flexible, interest-free payment plan. This plan allows a family to make 10 equal monthly payments beginning in June. You determine the amount of the bill to be covered—all or only a portion. The $50 application fee is the only charge. Tuition payment insurance is automatically included.
3. **Tuition Inflation Hedge:** Under this program, Clark University offers families the option of fixing the tuition rate for four years at the first-year level. To do so, families pay four years of tuition during the first year, at the current rate, avoiding any increases in tuition for the following three years. For more information and an application, please contact the assistant controller.

Transcripts

Transcripts must be requested in writing from the Office of Student Records. There is no charge for enrolled students for unofficial transcripts. Official transcripts cost $4 each. Transcripts are not issued to students with outstanding financial obligations.

Refund Policy

Withdrawals from the University are processed in the Dean of Students Office. A student who officially withdraws during the first one tenth of any semester is allowed a refund of 90 percent on tuition; during the first quarter, 50 percent; during the second quarter, 25 percent; after the second quarter there is no refund. Room, board, and mandatory fees are refunded by the same formula.

When a student has left, but not withdrawn from, the University on the advice of a doctor within the first half of a semester, and a decision is made later that the student must withdraw, tuition refund is made retroactive to the date of the doctor's recommendation, based on the schedule described above.

Refund Policy for First-time Students

Students attending Clark University for the first time, and who are recipients of federal financial assistance (including federal student and parent loans) are subject to additional refund regulations. Students are eligible for refunds of scheduled charges and are responsible for refunds to financial aid programs through 60 percent of the first semester of attendance. This time frame is determined from a student's first date of attendance through last date of attendance or official date of withdrawl. Refunds are determined by federal regulation; repayments to federal financial aid programs are made first to loan programs, then to grant programs, as determined by federal regulations.

Due to the special conditions for payment to overseas programs, a different refund policy is in effect for studying abroad on Clark programs. Additional information is available at the Office of Study Abroad.

Normal Program and Course Load Variance

A normal full-time academic program is eight course units per year (four course units per semester). Students may elect to vary this pattern by taking three course units during any semester. A course load of three courses per semester is a full-time course load and is billed accordingly. Juniors and seniors who have received College Board permission may choose to take five courses in a semester at no additional charge. All students must complete a minimum of seven full-time semesters to meet degree requirements. Students may enroll in two units per summer. While there is no limit to the total number of summer courses students may take, normally only four units may be counted toward graduation.

Seniors in their last semester are expected to take the necessary number of units (up to five) for their degree. Full-time first-year or transfer students, in their first semester at Clark University, must enroll in a four-course program. Students re-entering the University, or returning from leaves of absence, also must enroll in a four-course program during their first semester. Nontraditional students should consult with the dean of the college.

Orientation Fee

A fee of $155 is assessed to all new students to cover services and activities provided during orientation.

Contingency Deposit

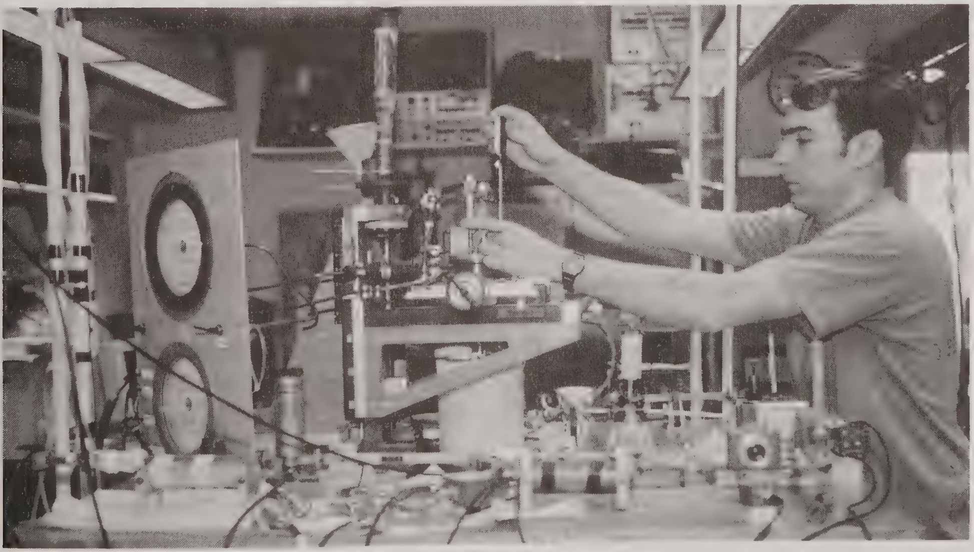
All new undergraduates are required to pay a $50 deposit to cover minor charges, such as unreturned library books, which may be incurred during the year. Students are billed each year for whatever charges are incurred. The balance is refunded upon completion of studies.

Housing Deposit

The $400 fee submitted by first-year students to Admissions includes a $100 housing deposit. Each spring, a deposit of $100 is required of students in order to enter the room selection process. The deposit is credited towards the yearly housing fee and is nonrefundable.

Application Fee

A fee of $40 must accompany the application for admission to the University. It is not refundable.



Student Activity Fee

A fee of $110 per semester, levied and administered by the Student Council, is required of all matriculated undergraduates except those on a program of study abroad. The Student Council allocates funds to student organizations that provide a wide range of cultural, social, and recreational activities.

Admission Deposit

For entering students planning to live on campus, a nonrefundable admission deposit of $300 and a housing deposit of $100 are required to indicate acceptance of an offer of undergraduate admission. For students planning to live off campus, only the $300 admission deposit is required. Deposits are credited toward charges for the first semester in attendance at Clark. Deposits are forfeited if the student does not enroll for the specified semester.

Tuition Deposit

A deposit of $300 is required of all students planning to return to the University for their sophomore, junior, or senior years. It is payable by June 1 and is credited toward charges for the fall semester; the deposit of $300 is forfeited if the student does not enroll for the specified semester.

Identification Cards

Identification cards are issued during orientation to all new students without charge. This card is an official college identification and is necessary for access to all campus facilities. Loss should be reported immediately to the campus police, located in the basement of Bullock Hall. There is a $15 replacement charge for a lost I.D.

Keys and Key Security

Room keys, mailbox combinations, and residence hall entry cards are issued to students upon their arrival at Clark. Fees are charged for the replacement of keys and cards that are lost during the year, and it is mandatory to return room keys and entry cards before leaving campus at the end of the academic year.

FINANCIAL AID

The Office of Financial Assistance provides quidance to Clark students applying for financial aid and to those interested in student employment.

Student Employment

Student employment opportunities at Clark include on-campus and off-campus part-time jobs and full-time summer employment, coordinated by the Office of Financial Assistance. At the beginning of each semester, Clark students with federal work-study awards receive a listing of available on-campus jobs and may choose a job best suited to their abilities and interests. It is important to note that an offer of Federal Work Study as part of a student's financial aid package is not a gurantee of that amount, but rather a limit of potential earnings. Students receive paychecks for actual hours worked that can be used for personal expenses, books, and supplies or saved for future bill charges. The Office of Financial Assistance also maintains a list of on- and off-campus jobs available to students not receiving federal work-study awards. The average number of hours worked each week for students who receive Federal Work Study is between 10 and 12 hours.

General Information

Financial aid is allocated on the basis of financial need and academic performance. Special talent in music, art, and other areas, as well as leadership ability, also are considered. Aid is packaged—i.e., a combination of scholarships, grants, loans, and/or part-time employment. The Office of Financial Assistance assesses each student's financial circumstances and need through a uniform analysis of the Free Application for Federal Student Aid (FAFSA) for federal and state funds, and the Profile Form for institutional funds. When required, adjustments are made in accordance with University policies and procedures. The assessment takes into account family income and assets, age of parents, financial commitments to other dependents and members of the family, and other special circumstances.

The University expects that a student's resources for education will come first from family and his/her own savings and earnings. The University will make every effort to assist most students in obtaining the difference between the total cost and expected family resources. No student should fail to apply for admission to Clark University because of the inability of his/her family to pay total educational costs.

Independent Sources of Aid

All applicants for financial aid are urged to pursue independent sources of financial aid. Clark cannot replace outside funds for which a student is eligible but fails to apply. Scholarships are often awarded to graduating seniors by high schools and/or private scholarship agencies in students' local communities. Additional information usually is available in guidance offices.

Applicants who are residents of Massachusetts are expected to apply for a Mass Grant. To apply, students must complete the Free Application for Federal Student Aid (FAFSA) by May 1, which may be obtained from guidance counselors or financial aid offices. Residents of other states should investigate the possibility of using reciprocal state scholarships (i.e., CT, DC, MD, ME, NH, PA, RI, VT).

An important source of federal financial aid is offered in the form of Federal Pell Grants. These grants, which vary in amounts up to $3,000 per year, are available to students who demonstrate financial need according to federal methodology. All applicants for financial aid are required to apply for a Federal Pell Grant. Students may do so by listing Clark University in the College Release and Certification section of the FAFSA.

Federal Stafford Loans are now available to all students, regardless of need. Students may borrow up to $2,625 the first year, $3,500 the second year, and $5,500 the third through fifth years of an undergraduate program. Students may borrow up to $8,500 per year of a graduate program. The subsidized version is limited to students who demonstrate financial need according to federal methodology. It is a variable interest rate capped at 8.25 percent. No payments are due, nor does interest accrue, until after graduation or until a student is enrolled on less than a half-time basis. It may be deferred for continued education. The unsubsidized version offers the same terms and conditions; however, interest begins to accrue during the in-school period.

Veteran's benefits may be available for service veterans and children of deceased or disabled veterans. Eligibility can be determined by contacting the local Veterans Administration Office.

Rehabilitation Assistance may be available for students who qualify for educational benefits. Information concerning rehabilitation services can be obtained at the State Rehabilitation Office.

Aid Awarded by Clark University

Clark University makes a commitment to entering students during their first year and in each subsequent year at Clark, as long as they continue to demonstrate financial need, continue to meet the standards of satisfactory academic progress, have filed all necessary application materials by the required deadlines, and have not exceeded program limitations of financial aid, and as long as federal and state funding to Clark's Office of Financial Assistance continues at the same level. Although any Clark student may apply for aid as an upperclassman, funding is guaranteed only to those students who received aid their first year at Clark and have met the above requirements.

Assistance at Clark is "packaged" in the form of scholarship, loan, grant, and/or employment from the following sources:

- **Clark University Scholarships**—a portion of the University income is reserved for this purpose, and gifts from alumni, parents, and friends provide additional scholarship funds. Eligibility for Clark Scholarships is determined under institutional methodology used in the analysis of the aid application materials.
- **Federal Supplemental Educational Opportunity Grants**—one of three campus-based federal aid programs available to college students demonstrating exceptional financial need. Continued support of this program is contingent upon annual Congressional allocations.
- **Federal Perkins Loans**—one of three campus-based federal aid programs available to college students demonstrating exceptional financial need. Loans made under this program carry a fixed 5 percent interest rate. Payment of principal and accrual of interest is deferred until after graduation or until a student is enrolled on less than a half-time basis. The loans carry a 10-year repayment schedule with a $40 monthly minimum. Continued support of this program is contingent upon annual Congressional allocations and the repayments of previous recipients.
- **Federal Work-Study**—one of three campus-based federal student-aid programs. This work program allows eligible students the opportunity to work during the school year to earn money for personal expenses, travel, books, and supplies, and over the summer to earn money towards the following school year's educational expenses.
- **Merit Scholarships**—awarded to exceptional students.

Satisfactory Academic Progress

Students receiving federal financial assistance of any type (including parent loans) are required to make "Satisfactory Academic Progress" toward their degree. "Satisfactory Academic Progress" is defined by regulations of the U.S. Department of Education as "proceeding in a positive manner toward fulfilling degree requirements." This is differentiated from "Academic Standing" which refers to students whom the institution allows to continue to enroll.

Full-time bachelor's degree candidates must maintain minimum grade point averages and complete five courses the first year; six courses the second; and seven courses each year thereafter. These requirements are pro-rated for less than full-time students and students attending less than a full academic year. Evaluation of Satisfactory Academic Progress is made at the end of each spring term.

Students who are determined not to be making Satisfactory Academic Progress are allowed one semester of continued assistance under "probation" status in order to obtain the necessary requirements for maintaining progress. If students are still not making "Progress" after one semester of "probation" status, aid is discontinued. Students are allowed only one semester of "probation" while at Clark. Appeals to this policy for special and unusual circumstances may be made in writing to the director of financial assistance.

Endowed Scholarships

Most grants awarded by the University are designated Alumni and Friends Scholarships. Funds for these scholarships are derived from named endowed funds. Because of the various restrictions placed on these funds, it is the policy of the University to select eligible recipients. Students should not apply directly.

Undergraduate Admission Requirements

First-Year Student Admission

Clark University welcomes applications from men and women regardless of race, color, sex, sexual orientation, religion, age as defined by law, handicap, national origin or financial condition. Selection is competitive and based primarily on academic promise as indicated by secondary-school performance, recommendations and standardized test (SAT, ACT) scores. Secondarily, decisions reflect consideration of the individual experience and particular circumstances unique to each candidate.

Entrance Requirements

A diploma from an accredited secondary school or G.E.D. equivalency is required for admission to Clark. The academic preparation for successful candidates should include four years of English; three years of mathematics; three years of science; two years of both a social science and a foreign language; and other credit electives, including the arts, recognized in the secondary-school curriculum. The University is most concerned with the strength of the student's academic program and therefore recommends this framework of courses. However, the University values diversity and understands that some students may be following different high school curricular patterns.

The Application

Students applying to Clark should contact the Admissions office for a University application, or they may use other forms, such as the Common Application, College Link or Apply! The admissions staff has no preference for any one application form, but may request supplemental information when warranted. A nonrefundable application fee of $40 or official fee waiver request must accompany the application. Transfer and international students should contact the Admissions Office for separate application forms.

Clark University
Admissions Office
950 Main Street
Worcester, MA 01610-1477
Telephone: 508-793-7431
Fax: 508-793-8821
Email: admissions@admissions.clarku.edu
World Wide Web: http://www.clarku.edu

Students who may be applying for financial assistance should refer to information provided in the "Undergraduate Tuition and Financial Aid" section of this catalog.

Early Admission

Exceptional students are invited to apply for early admission when encouraged and supported by enthusiastic recommendations from their secondary schools.

Early Decision

If Clark University is clearly your first choice, we encourage you to apply Early Decision. By signing the Early Decision statement on the front of the application, you agree that, if admitted, you will withdraw all other college applications. The Early Decision deadline is November 15, with notification in early January. A candidate who is "deferred" under Early Decision will automatically be reconsidered for regular admission in February.

Regular Admission

Candidates for admission in September should initiate their applications as early as possible, usually during the first grading period of their final year of secondary school. The deadline for applications and supporting credentials is February 1 (November 15 for January admission.)

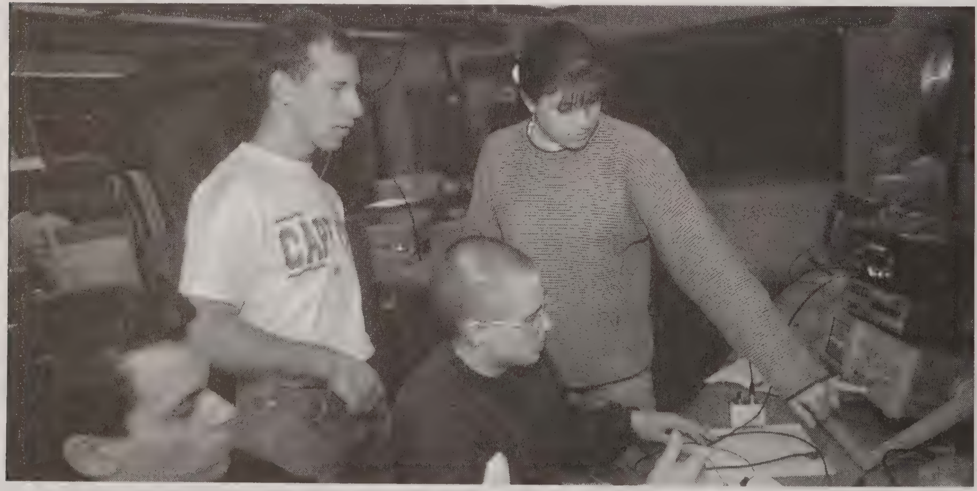
Admission Tests

All U.S. first-year students are required to submit results of the SAT I or American College Test (ACT) and the SAT II Writing Test. Two additional SAT II subject tests of the student's choice are recommended.

If English is not your primary language, you should submit scores from the Test of English as a Foreign Language (TOEFL). Successful candidates usually score in the 550-650 range. (See section on International Admissions.)

Interviews and Campus Visits

Interviews are not required but are strongly recommended. The most informative way to learn about Clark University is to spend a day on campus, or even stay overnight. Prospective students are invited to take tours, sit in on classes and meet students and faculty members. Please call or write to the Admissions Office for information concerning interviews, tour schedules, and directions.



If you cannot visit the campus, we encourage you to talk with one of the University's alumni admissions representatives in your area. For the names, locations and telephone numbers of available alumni, contact the Clark Admissions Office.

Admission Notification and Deposits

Admissions decisions for September are released on or about April 1. Clark subscribes to the Candidate's Reply Date of May 1 and requires a non-refundable deposit that is credited toward first-semester charges. Students planning to live on-campus must submit a tuition deposit of $300 and housing deposit of $100 to indicate acceptance of an offer of admission. For students planning to live off-campus, only the $300 deposit is required. January applicants can expect to receive an admission decision by mid-December with the commitment deposit due within two weeks of notification.

Deferred Admission

Students who want to postpone enrollment need to submit a request in writing by the assigned deadline. Students who undertake academic work in the interim may not automatically defer enrollment but must reactivate their applications by submitting official transcripts for review.

Advanced Standing

Placement in advanced courses is determined by individual performance on departmental examinations, which may be oral or written. Students may also earn advanced standing with scores of 4 or 5 on Advanced Placement (AP) tests administered by the College Entrance Examination Board, submission of certain international educational credentials (i.e., International Baccalaureate, Arbitur, A-Levels, etc.) and by transferring credit from college-level coursework.

International Admission

Clark uses a separate International Application for Admission form for non-U.S. citizens, which may be obtained by contacting the Admissions Office. Because of the sequential nature of University courses, Clark encourages all international students to apply for the fall semester (deadline February 1).

The Test of English as a Foreign Language (TOEFL) is required of all candidates whose native or official language is not English. Information concerning test dates and locations may be obtained by writing to: TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151 U.S.A. Students who have completed four or more years of U.S. secondary school education–in the U.S. or abroad–should submit results of the SAT I or ACT standardized tests. The Certificate of Eligibility (I-20 form), necessary to obtain a student visa, will be granted only after full admission and receipt of complete financial documentation (in the form of an official bank statement indicating a monetary amount).

Transfer Admission

Clark welcomes applications for admission with advanced standing from students attending two- and four-year institutions. A separate transfer application is required, which can be obtained by contacting the Admissions Office. Applicants for September should file by April 15, January applicants by November 1. All transfer candidates are required to submit evidence of good standing, complete transcripts of all previous academic work–secondary and post secondary–including standardized tests (if taken) and any other information requested by the Admissions Committee, such as recommendations and course-description catalogs.

Normally, credit is given for academic courses in the liberal arts previously taken at accredited colleges and universities and by advanced standing procedures, described above. No credit is given for grades lower than C-minus. Evaluation of credits for college courses is made at the time of admission or upon receipt of final transcripts and is used in planning a program of study at the University. Up to 50 percent of Clark's degree and major requirements may be awarded on this basis, and a minimum of two academic years at Clark is necessary for completion of degree requirements.

Requirements for a Bachelor's Degree

Academic credit toward the bachelor of arts degree is expressed in terms of course units. Each Clark course is awarded one unit (equivalent to four credit hours). To earn a bachelor's degree, a student must complete a minimum of 32 course units (128 credit hours) with a minimum 2.0 grade point average. He/she must receive a C minus or better in at least 24 of these courses. Successful bachelor of arts degree candidates must also complete all institutional, major departmental, and Program of Liberal Studies requirements for graduation. Transfer credit for students with fewer than 32 courses in residence is established by the Transfer Evaluation Committee. Students may accelerate their progress toward graduation by no more than one semester without special approval of the College Board. For the purpose of transfer, a full Clark course is equivalent to four semester hours of credit.

Transfer Credit

To earn a bachelor's degree at Clark, a student must earn at least one-half the total number of course units for the degree and at least one half the total number of course units taken for fulfillment of a major in a Clark program. Students must be enrolled full time at Clark for both semesters of their senior year (effective for the class of 1999). Units earned through Clark programs off campus also meet the requirement. External credit is credit earned in the following categories:

1. Advanced placement
2. Credits transferred from other American colleges and universities
3. Credit earned in foreign study programs administered by American or foreign institutions of higher learning other than Clark.

The amount of transfer credit that can be applied to a bachelor's degree at Clark is limited by category.

1. No more than one semester (four units) may be granted in advanced placement (A.P.). A.P. credit is defined as one unit of degree credit assigned for a score of 4 or 5 on a CEEB A.P. examination taken prior to matriculation and before the student formally enrolls. Students also may receive credit for college work completed prior to their matriculation at Clark University if that credit is in a content area deemed academically acceptable to Clark, and is from an accredited college or university. Finally, students may apply for advanced placement credit based on coursework or exams taken in international programs (e.g., International Baccalaureate, A levels, etc.).
2. Students transferring to Clark from another institution may transfer in no more than 16 units of course credit. Students who begin their coursework at Clark may subsequently transfer up to 12 units of course credit from other schools.
3. Normally, no more than one year (eight course units) may be taken in study abroad programs.

Academic Regulations

Full-time study is defined as a three- or four-course program. Normally undergraduates carry four courses per semester. Full-time students must enroll in three or more courses per semester. Students should consult their faculty advisor, or in some cases, the Academic Advising Center or major departments when questions about course or program selection arise. With approval from the College Board, juniors and seniors with a minimum GPA of 3.0 in their prior semester, or with a minimum cumulative GPA of 3.0, may enroll in a fifth course.

While first-year students and sophomores may choose any course designated by a department as open to them, 200-level courses are normally designed for juniors and seniors. Juniors and seniors may elect any 100- or 200-level course, provided they have met all required prerequisites and have the permission of the faculty member, if necessary.

Undergraduates may be admitted to 300-level graduate courses with the approval of the instructor.

Grades

Grades are an indication of individual performance in each course taken at the University. At Clark, four grading options are currently in use:

1. **Graded courses:** This option uses the symbols A, B, C, D, and F, with the modifying symbols "+" and "-" for A, B, and C. The lowest passing grade is D.

   The faculty has approved the following qualitative description of grades:

   A indicates work of distinction, of exceptionally high quality

   B indicates good work, but not of distinction

   C indicates average work and satisfaction of University degree requirements

   D indicates marginal work

   F indicates unacceptable work

2. **The Pass/No Record Option:** This option uses the symbols P and NR. P indicates work at a level of C- or better. Neither the P grade nor its credit is included in the calculation of the grade point average. Performance below a C- results in a No Record (NR) grade. NRs do not appear on students' transcripts. Students must choose this grade option at registration. There is no limit to the number of NR grades that a student may receive. However, NR grades do not carry credit and are not counted toward graduation or University requirements.
3. **The Credit/No Credit Option:** This grading option, assigned by the University to a course, uses the symbols CR/NC. CR indicates work at a level of C- or better. The NC is treated like an F.

Grade-point averages are calculated by the University to determine academic good standing, annual and January academic honors, Latin honors at graduation, and eligibility for various honor societies. The grade-point average is calculated as the average of grades earned in all Clark University graded courses. Neither external credit nor ungraded Clark University courses are included in this calculation.

Pass/No Record Option

The availability of the pass/no record option is designed to offer students the opportunity to take a course, usually unrelated to their major, without risking a negative impact on their GPA.

All students should bear in mind that the majority of graduate and professional schools have expressed a preference for graded transcripts and encourage applicants to have graded courses. Preprofessional students and those for whom graduate school is a goal should exercise caution in selecting the pass/no record option. Students who are interested in attaining honors, such as Phi Beta Kappa, Dean's List, and Latin honors at graduation, also should exercise use of the option cautiously.

Noncredit Audit Status

With the permission of the instructor, full-time degree students are eligible to register as auditors in any course. There is no additional charge for this privilege. Part-time matriculated students also may register as auditors with the permission of the instructor and the payment of a per course fee. In limited or sectioned courses, regularly enrolled Clark students are given preference for available openings.

Matriculated students who successfully complete audited courses (this determination is made by the instructor) also will have the audited courses posted on their permanent records. *Note:* Records for nonmatriculating auditors are kept for only the semester in attendance. Transcripts are not issued for audited courses.

Withdrawal From Courses

A student may withdraw from a course at any time during the first two weeks of classes without having a W recorded on his/her transcript. Students may withdraw from a class up until the last day of classes, but any withdrawal after the second week of the semester will result in a W being recorded on the transcript. Students compelled to withdraw from a course due to exceptional circumstances (e.g., serious illness) may petition the College Board for the Withdrawal with Reason (WR) transcript notation for the course.

Incompletes

A record of incomplete may be permitted by approval of the College Board or dean of the college only when sickness or some other unavoidable circumstance prevents completion of the course. Individual instructors may not assign incompletes without the approval of the College Board or dean of the college. A record of incomplete incurred in the first semester must be made up no later than the following April 1; if incurred in the second semester, it must be made up no later than the following Oct. 1. If a course is not completed within the specified time, the record of incomplete is changed to F.

Registration

All continuing undergraduates are expected to register in November for the spring semester and again in April for the following fall semester. Details are provided in the registration class schedule each semester. Registrations must be finalized by the end of the second week of classes each semester. Notification of the dates for registration is given, and failure to register within the announced period results in a late fee.

Examinations

Final examinations are given at the end of most courses. Approximately one week is set aside for each examination period, and an attempt is made to distribute examinations for

individual students evenly throughout this period. Absence from a final examination, except for the most compelling reasons, may result in a failure for the course.

Comprehensive final exams are not to be given (or to be due) during the last week of class nor during the scheduled reading period. Other examinations and tests may be given at any time during the course at the discretion of the instructor.

Class Attendance

There is no University-wide class attendance policy. However, many individual instructors do set attendance requirements for their courses.

Student Absence Due to Religious Beliefs

According to Massachusetts state law, any student who is unable, because of his or her religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day, will be excused from that requirement. He/she will have an opportunity to make up any examination, study, or work requirement missed because of such absence, provided the makeup examination or work does not create an unreasonable burden on the University. No fees will be charged by the University for making such opportunities available. No adverse or prejudicial effects will result to any students because of their availing themselves of these provisions.

Course Changes

After registration is complete, a student may enter a course only with the permission of the instructor. Students may add courses up to two weeks after the beginning of classes. Thereafter, a student may enter a course only with the permission of the instructor and the College Board or the dean of the college.

Classification of Students

All students who have not been required to withdraw at the end of the academic year will be promoted if they have satisfactorily completed the following number of courses:

To the sophomore class	6 units
To the junior class	14 units
To the senior class	22 units

Partial Programs

In special circumstances, students may be permitted by the dean of students or the dean of the college to register for a semester program of fewer than three courses. These students are designated as part-time students.

Guest And Special Students

Guest students from other colleges and universities who want to study at Clark for one or two semesters and special students who want to take only a few courses without enrolling as degree candidates may do so. Students who wish to enroll as guest students should contact the Admissions Office. Those interested in special student status should contact the Office of Student Records.

Academic Standing

Academic standing is reviewed each semester and is based upon performance during the previous semester. All students are required to pass at least two courses each semester and to maintain a 2.0 grade-point average. In order to remain in good academic standing, first-year students must complete at least five courses with a minimum 2.0 grade-point average by the conclusion of their first year. Sophomores, juniors, and seniors must complete at least six courses with a minimum 2.0 grade-point average for the year. In addition, students may earn no more than eight D grades for credit towards graduation. Students who fail to meet these requirements will be placed on academic probation for the next semester they are enrolled in the institution.

Students who do not maintain academic good standing or who violate academic integrity may be placed on academic probation or may be dismissed by the College Board or the dean of the college. The progress of students who are placed on academic probation is reviewed by the board at the end of the semester on probation.

Students on probation are expected to complete four courses with a 2.0 average or face a required withdrawal for the subsequent semester. A second required withdrawal requires the student to complete three courses at another institution with grades of "C" or higher prior to their application for readmission to Clark. A third required withdrawal is final.

Academic Integrity

Academic integrity is a basic value for all higher learning. Simply expressed, it requires that work presented must be wholly one's own and unique to that course. All direct quotations must be identified by source. Academic integrity can be violated in many ways: for example, by submitting someone else's paper as one's own; cheating on an exam; submitting one paper to more than one class; copying a computer program; altering data in an experiment; or quoting published material without proper citation of references or sources. Attempts to alter an official academic record will also be treated as violations of academic integrity.

To ensure academic integrity and safeguard students' rights, all suspected violations of academic integrity are reported to the College Board. Such reports must be carefully documented, and students accused of the infraction are notified of the charge. In the case of proven academic dishonesty, the student will receive a sanction which may range from an F in the assignment or course to suspension or expulsion from the University.

Leaves of Absence

A student who is in good standing may apply to the dean of students for a leave of absence, after which he/she may return to the University without formal application for readmission.

No Shows

Students who fail to enroll for two consecutive semesters without taking a formal leave of absence will be administratively withdrawn from the institution. To be considered for readmission after this dismissal, students must apply to the dean of students.

Departmental Honors

Students may be admitted to a program leading to a bachelor's degree with honors in a particular major at the beginning of the junior year or, in some cases, at the beginning of the senior year. In most cases, each student will work with a faculty member who serves as his or her honors advisor and assists with planning the honors research and thesis during the student's junior and senior years. The program may include a maximum of six courses in which the student works under the advisor's supervision. In some cases, students must pass a comprehensive examination given by the department in the senior year.

Students should check with the major department to obtain guidelines for the specific requirements for honors before the end of the sophomore year (although in some departments, applications for honors may be made in the second half of the junior year).

Admission to an honors program does not relieve students of any of the standard major requirements. A student's candidacy for honors will be terminated at the end of any term in which he/she has not maintained a standard of work satisfactory to the department. If candidacy is terminated for any reason, the amount of course credit to be allowed for honors courses will be determined by the College Board.

The department may recommend that a student graduate with honors, high honors, or highest honors. That recommendation is made to the dean of the college at the completion of the honors program and is announced at graduation. Consult individual departments for details concerning acceptance into their honors programs.

University Honors

Each semester, the dean of the college publishes a list of students who have distinguished themselves by outstanding academic performance in the preceding semester. Honors are awarded to the top students in each class based on semester grade averages.

Upon graduation, Latin honors are awarded at three levels: cum laude, magna cum laude, and summa cum laude. These general honors are determined by criteria such as grades and percentage of courses taken on P/NR and a graded basis. Ordinarily three quarters of a student's record at Clark must be graded if he/she is to be eligible for general honors.

Honor societies at Clark include the Society of Phi Beta Kappa, founded at the College of William and Mary in 1776 and dedicated to the recognition and encouragement of outstanding scholarly achievement in liberal studies. The Clark Chapter, Lambda of Massachusetts, was established in 1953. Gryphon and Pleiades is the senior honor society at Clark. Its membership includes students who have been recognized by administration, faculty, and their peers for academic achievements and leadership in campus extracurricular activities. The Fiat Lux Honor Society was created in 1988 as a student honor and service society recognizing combined qualities of scholarship and citizenship among Clark juniors and seniors. Qualifications for selection include a minimum 3.3 grade-point average and a significant extracurricular contribution to the Clark community.

Facilities and Student Resources

Housing

Clark University provides housing for approximately 1,450 students in eight residence halls and eight houses. The residential staff members are available to assist students with a variety of personal and academic concerns and strive to provide a "living and learning" environment via social, recreational, and educational program opportunities. One residence hall, Dodd, is an all-women residence. All other halls and houses are coeducational. Two halls house only first-year students and one is designated primarily for upper-class students. Special interest housing includes a "substance awareness house," a "quiet house," and a "year-round house." First- and second-year students, unless commuting from home, are expected to live in University housing.

New student assignments are made in late June and returning students select their housing during a March/April room selection process. Approximately one-third of Clark students commute from home or live in private apartments in the immediate neighborhood. A limited listing of available apartments is compiled by the Office of Residential Life and Housing.

Food Services

Bon Appetit, the University's food service provider, operates two dining facilities in the Higgins University Center—the Bistro and Cafe Bon Appetit. Cafe Bon Appetit is an all-you-can-eat facility, serving breakfast, lunch, and dinner. Food options in Cafe Bon Appetit include a delicatessen; grilled and charbroiled food to order; fresh pasta and pizza; international fare; vegetarian meal choices; and salad bars with breads and soups.

The Bistro is an a-la-carte facility with continuous service throughout the day. The Bistro features fresh deli sandwiches, salads, and cooked-to-order food. Both facilities serve students, faculty, and staff.

First- and second-year students living in Clark residence halls are required to select a meal plan; meal plans may be purchased by other students as well. Meal plans can be used in both Cafe Bon Appetit and the Bistro in addition to the on-campus pizza delivery program. Cash card points may be purchased by all students and can be used in all Bon Appetit facilities as well as the General Store and Grind Central.

Health Services

The Clark University Health Service is a primary care outpatient clinic that provides on-campus health care to full-time matriculated undergraduate students. It is staffed by physicians, nurse practitioners, registered nurses, and support staff. The clinic, located on the first floor of Wright Hall at 30 Downing St., is open Monday through Friday 9 a.m. to 5 p.m. There is always a physician on call when the Health Service is closed.

Students may make an appointment at the Health Service with a clinician for diagnosis, treatment, follow-up, or counseling regarding health problems. Gynecological and contraceptive services are available.

Massachusetts law requires all full- and part-time students to enroll in a qualifying student health insurance plan offered by the University or in another health insurance plan with comparable coverage. Failure to submit proof of comparable coverage will result in a student being automatically enrolled in the Clark plan and charged accordingly. In compliance with state law, students may not register for classes until they are enrolled in an insurance plan.

Dean of Students Office

The Dean of Students Office is concerned with the academic and personal well-being of students. Professional counselors are available to assist students and can make referrals to off-campus agencies when necessary or requested. The deans provide confidential services to assist students both in and out of the classroom.

The Dean of Students Office publishes a student handbook, which outlines student support services, the code of general conduct, student activities, housing and residential programs, university committees, and standard University policies and procedures.

Campus Security

The Clark University campus is served by a 12-officer police force, staffed by professionals deputized by the Commonwealth of Massachusetts. Campus Police are armed and have full arrest and policing powers.

Campus Police take a proactive approach to campus security, offering educational programs to students, faculty, and staff on how to take precautions appropriate to an urban setting. Campus Police and Physical Plant maintain a network of 28 indoor and outdoor emergency telephones to ensure a quick response to security concerns. An escort service is available for students from 5 p.m. to 4 a.m. during the academic year within a quarter mile of the Clark campus. Clark University, as mandated by federal law, reports annually on the security of its campus. A copy of the Campus Security Report is available at Admissions House and Campus Police.

Facilities and Resources

Campus Libraries

The Robert Hutchings Goddard Library, named for the Clark physicist who invented the rocket technology that made space travel possible, is the academic heart of the University and an architectural landmark. Goddard is both a traditional and an electronic library with collections and services that are a combination of time-tested and brand new. The collections include more than 555,000 volumes, 265,000 monographs and subscriptions to 2,000 periodical titles. The Library provides full Internet access and nearly 50 end-user subject specific data bases. As a member of the Worcester

Consortium for Higher Education, Clark offers students the use of eight academic consortium libraries and a combined local collection of more than 3.5 million volumes.

Goddard Library also offers a viewing area for videocassettes; a listening area for compact discs, records, and tapes; a language lab; microcomputers; and terminals linked to the campus computing network. Through the University Computing Center, the Library's menu of electronic information sources including the Public Online Catalog is available 24 hours a day.

The Guy Burnham Map and Aerial Photography Library, founded in 1921, is an active cartographic information center. The collection, global in scope, contains over 200,000 maps and 7,500 aerial photographs, as well as atlases, journals, globes, map reference materials, and tourist information. A depository agreement with the U.S. Government Printing Office insures the availability of a full array of U.S. government maps. The library is located on the lower level of the Geography Building.

The Carlson Science Library, a branch of the Goddard Library, serves the disciplines of biology, chemistry, and physics. Located on the top floor of the Sackler Sciences Center, it houses selected science journals and a research collection of recent monographs. Full Internet access as well as subject-specific databases are provided.

Computer Facilities

The Office of Information Systems is Clark's focal point for the development and delivery of information services. These services are based on the integration of campus network, central computing, and desktop computing resources. Our campus network connects all principal University buildings, including all residence halls, and consists of a 100 Mbps fiber-based backbone with switched and shared 10 Mbps segments to the desktop, and is connected to the Internet. Central resources include host and server systems that support electronic messaging, Help Desk, library, general, and administrative computing. Desktop resources consist of Macintosh and Windows-based computers. Four multimedia lecture halls are available, as are two teaching classrooms equipped with desktop computers, and three general-purpose computing laboratories.

Two personal computer facilities are offered in Jonas Clark and Carlson halls that house Macintosh and IBM microcomputers. These facilities serve as group classroom space for scheduling of "hands-on" courses using both microcomputers and network terminals. The University supports network connections to the international Internet and Bitnet education and research networks.

Science Facilities

The Arthur M. Sackler Sciences Center links the Biology, Chemistry, and Physics departments and houses facilities for both teaching and research. Interdisciplinary programs, such as Biochemistry and Molecular Biology and Environmental Science and Policy, also are housed in Sackler. State-of-the-art scientific equipment, such as an electron microscope and high-field nuclear magnetic resonance (NMR) spectrometers, serve Clark students and researchers, as well as others in the central Massachusetts region. A centralized science library and microcomputer rooms also are housed here.

Visual & Performing Arts Facilities

The George F. and Sybil H. Fuller Foundation Center for Music is a state-of-the-art facility for teaching, performing, rehearsing, and experimentally creating music. The center has two computer music studios containing powerful direct digital systems for composition, sound processing, and synthesis based in individual, personal computer work stations.

There is also studio space for drawing, painting, graphic design, visual studies, and photography as well as darkrooms, a sculpture and theater set construction studio, printmaking facilities, and costume design shop. A University Gallery provides learning experiences in arts management and exhibition design.

Athletic Facilities

The Kneller Athletic Center includes a gymnasium with three full-size courts for basketball and volleyball as well as space for indoor badminton, field hockey, running, lacrosse, soccer, softball, and tennis; a six-lane 25-yard swimming pool with one- and three-meter diving boards; four racquetball courts and two squash courts; two weight rooms; a training room with facilities for rehabilitation; a dance room; plus locker rooms, offices, and conference rooms.

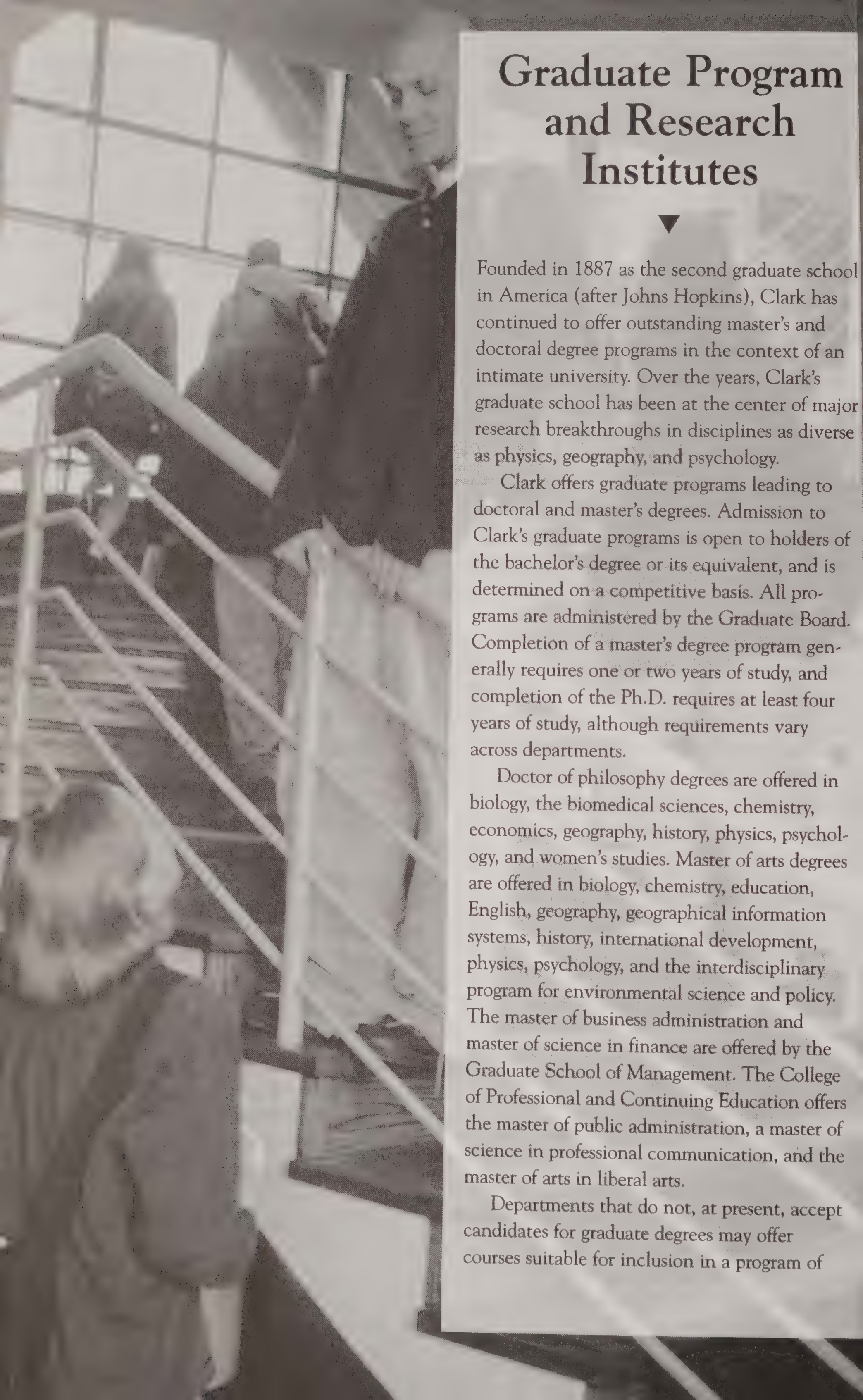
The 4,300 square-foot James and Ada Bickman Fitness Center, an addition to the Kneller Athletic Center opened in the fall of 1995, provides students with a cardiovascular area and a strength and free-weight area.

Students play outdoor sports at the Russ Granger Fields, which contain six tennis courts, a field hockey field, and lighted fields for baseball, lacrosse, soccer, and intramurals. Clark's intercollegiate softball field and cross country course are a short distance from the main campus. The varsity crew team practices and competes on Lake Quinsigamond.

Division III Intercollegiate Athletics

Clark's 17 intercollegiate varsity teams compete as a member of the National Collegiate Athletic Association (NCAA, Division III) and the Eastern College Athletic Conference (ECAC). Locally, Clark competes in a men's and women's conference that includes Babson College, Massachusetts Institute of Technology, Mount Holyoke College, Smith College, Springfield College, United States Coast Guard Academy, Wellesley College, Wheaton College, and WPI.

Men's Varsity sports include baseball, basketball, crew, cross country, lacrosse, soccer, swimming & diving, and tennis. The women's varsity sports include basketball, crew, cross country, field hockey, soccer, softball, swimming & diving, tennis, and volleyball.



Graduate Program and Research Institutes

Founded in 1887 as the second graduate school in America (after Johns Hopkins), Clark has continued to offer outstanding master's and doctoral degree programs in the context of an intimate university. Over the years, Clark's graduate school has been at the center of major research breakthroughs in disciplines as diverse as physics, geography, and psychology.

Clark offers graduate programs leading to doctoral and master's degrees. Admission to Clark's graduate programs is open to holders of the bachelor's degree or its equivalent, and is determined on a competitive basis. All programs are administered by the Graduate Board. Completion of a master's degree program generally requires one or two years of study, and completion of the Ph.D. requires at least four years of study, although requirements vary across departments.

Doctor of philosophy degrees are offered in biology, the biomedical sciences, chemistry, economics, geography, history, physics, psychology, and women's studies. Master of arts degrees are offered in biology, chemistry, education, English, geography, geographical information systems, history, international development, physics, psychology, and the interdisciplinary program for environmental science and policy. The master of business administration and master of science in finance are offered by the Graduate School of Management. The College of Professional and Continuing Education offers the master of public administration, a master of science in professional communication, and the master of arts in liberal arts.

Departments that do not, at present, accept candidates for graduate degrees may offer courses suitable for inclusion in a program of graduate study. Programs crossing departmental lines are also available through the University's individually designed Ph.D. program.

There is a wide variety of financial support available for incoming graduate students. Most departments offer teaching assistantships, fellowships, and research assistantships. Often these come with a stipend as well as tuition grants. Some specific examples of fellowship awards are listed at the end of this section.

Because of the close interaction between the graduate and undergraduate colleges, Clark is able to offer accelerated, five-year master's degree programs. In a program unique to Clark, the fifth year is offered free to students who maintain a B plus average over their undergraduate four years at Clark.

Inquiries and Admission to Graduate School Programs

Inquiries from both U.S. and international students concerning specific programs of graduate and postdoctoral work should be addressed to the chair of the department or program concerned. Visit our website at http:\\www.clarku.edu for more information.

Admission to the Graduate School may be granted only by the dean of graduate studies and research acting for the Graduate Board on the recommendation of a department or program of the University. Formal notification is by official letter from the graduate dean. Applicants should communicate with the appropriate department or program head. The applicant will be provided with an application form, which, accompanied by a $40 application fee, should be returned to the department or program. In addition, the applicant should arrange for the forwarding of an official transcript of all undergraduate and any subsequent academic work and three letters of recommendation from persons who are competent to judge qualifications for graduate study.

Department or program heads may request the submission of additional material, and most require a record of attainment in the Graduate Record Examination given by the Educational Testing Service, Princeton, N.J. All applicants are urged to submit their scores on the Graduate Record Examination verbal, quantitative, and advanced tests. Applicants to the Graduate School of Management programs are required to take GMAT rather than GRE examinations.

In addition to an application and $40 fee, foreign students should provide a certified English translation of official transcripts, evidence of English proficiency (TOEFL), at least three letters of recommendation, and a statement concerning their financial resources or agency support.

Application deadlines vary by department. Please contact the department or program of interest for the date.

Admission to the Graduate School is valid for a specified time only and lapses after that period. If a student is admitted while still a candidate for a degree from another institution, an updated transcript noting the conferring of that degree must be sent directly to the dean of graduate studies and research.

Part-time graduate study is possible in some departments. Admission as a special graduate student (nondegree candidate) is a simple enrollment process handled through the Office of Student Records. The grading system for these students is: A-F (with plus and minus) or Pass/Fail.

Master's Programs

Master of Arts

Master of arts degrees are offered in the fields of biology, chemistry, education, English, geography, history, international development, physics, psychology, and the interdisciplinary program environmental science and policy.

Residency: An academic year (generally eight semester-courses) of study in residence is a minimum requirement for a master's degree. Individual departments or programs may require longer periods of residency. Residence study is broadly defined as graduate work done at Clark University under the immediate personal supervision of at least one member of the University faculty.

Foreign Language: Language or other special requirements are included in the department listings in this catalog.

Course and Examination Requirements: Each student must complete at least eight semester-courses in a program approved by the department. One course may be a research course devoted to the preparation of the thesis. Credit for a maximum of two courses at another institution may be approved by the dean of graduate studies and research upon recommendation of the department.

Each candidate must pass written examinations required by the major department and a final oral examination by a committee of three or more, one of whom must be a representative approved by the Graduate Board.

Thesis: The thesis is written on a topic in the field of the student's special interest under the supervision of a member of the department and in a style, length, and format that is appropriate to the problem being researched. Regulations for submission of theses and degrees are available from the department and the Graduate School Office.

Graduation Fee: The fee for the master of arts degree is $100. This covers the cost of the diploma, publication of the precis in Dissertations and Theses, and binding of the library copy. It is payable when the thesis is deposited with the format advisor. Students who do not write a thesis, including those receiving the degree on the alternative program, must pay this fee no later than the date on which theses are due to the University format advisor.

Alternative Program: A candidate for the degree of master of arts may be recommended for the degree without a thesis after passing a preliminary doctoral examination.

Nonresident Students: Continuing students who are not registered for courses at Clark are required to register for and pay a nonresident fee of $200 per semester to maintain active status. If fees are unpaid, the student will be dropped from the degree program. (Fees double after three years.)

Master of Arts in Education

See program description in the Education section of this book for program requirements.

Post-Graduate Programs in COPACE

Through the College of Professional and Continuing Education (COPACE), Clark offers Master of Arts in Liberal Arts (MALA), Master of Public Administration (MPA), and Master of Science in Professional Communication (MSPC) degrees.

The MALA degree program is designed for students wishing to pursue liberal arts education at the graduate level. The Master of Public Administration Program is designed to strengthen and advance the managerial and analytical skills of midcareer managers and executives in public organizations and nonprofit institutions. The Master of Science in Professional Communication is a comprehensive, practical program designed for mid-career professionals. For further information, contact the College of Professional and Continuing Education.

Certificate Programs

Through COPACE, the University offers three postgraduate certificate programs: the Graduate Certificate in Gerontology, the Graduate Certificate in the Teaching of English as a Second Language, and the Graduate Certificate in Public Administration.

Certificate of Advanced Graduate Study (CAGS)

Through COPACE, Clark offers a Certificate of Advanced Graduate Study (CAGS) in Interdisciplinary Studies, designed for teachers, administrators, and other professionals. The program is open to those already holding a master's degree. Although increased specialization in a student's particular area is possible through the chosen concentration track, the Clark Interdisciplinary Studies CAGS, unlike traditional CAGS offered elsewhere, attempts to foster breadth beyond a discipline. Courses are chosen from several disciplines; the student's focus is interdisciplinary, incorporating and transcending established domains of study.

Master's Programs in the Graduate School of Management

Master of Business Administration/ Master of Science in Finance

The accredited Clark University Graduate School of Management offers programs leading to the master of business administration (MBA) and the master of science in finance.

Doctoral Programs

Doctor of Philosophy

Doctor of philosophy degrees are offered in biology, biomedical sciences, chemistry, economics, geography, history, physics, psychology, and women's studies. The University also offers an individually designed Ph.D. program for programs crossing departmental lines. Doctoral students in the biomedical sciences and in psychology may also enroll in courses given cooperatively with the University of Massachusetts Medical School, the Worcester Foundation for Experimental Biology, and Worcester Polytechnic Institute. Only well-qualified candidates with proven ability in their special fields of study will be encouraged to proceed to the degree of doctor of philosophy.

Residence: The minimum requirement is one year of full-time study (eight semester courses) beyond the M.A. or its equivalent in part-time work, in residence. If the degree of master of arts has been earned at Clark, this requirement is in addition to the residence requirement for that degree.

Foreign Language: Each graduate department sets its own language or related requirements as the student's field of research may demand and must report such requirements in each case to the dean of graduate studies and research. If a language is required, either a testing service or on-campus tests are employed at the discretion of the department.

Preliminary Examination: Upon completion of preparation in the fields of study, a prospective candidate takes a preliminary examination set by the major department. This examination may be written or oral, or a combination of both. The chair of the department may invite other scholars from within or outside the University to participate in the examination.

Dissertation: A dissertation, which is expected to make an original contribution to a specialized field of knowledge, is required of each candidate. The dissertation, approved by the chief instructor or dissertation committee, is presented to the examining committee at the final oral examination. An abstract of the dissertation, not exceeding 350 words, and a precis, not exceeding 75 words, both approved by the dissertation advisors, are also required. Four weeks before the degree is to be conferred, a presentation-quality copy of the dissertation, together with two official title pages, an academic history, an abstract and a precis, must be delivered to the University format advisor. At the same time, one or more copies of the dissertation and of the abstract may be required by the major department. The title pages, precis, and academic history forms can be obtained from the format advisor. The presentation-quality copy of the dissertation must be typed or computer-printed as prescribed in Format Regulations for Theses, Dissertations, and Research Papers and Suggestions for the Preparation of Doctoral Dissertations for Microfilming. These instructions are available from the format advisor.

The dissertation and abstract become part of the permanent collection in the University library. A microfilm copy of each dissertation is made by University Microfilms, Inc., of Ann Arbor, Michigan, and is available for duplication on request to that company. The abstract is printed in Dissertation Abstracts.

Articles published in referred journals may be accepted in lieu of a dissertation with the approval of the department and the graduate dean. Requests for approval should include statements that attest to the originality and significance of the study.

Final Examination: An oral examination is required. Additional written examinations may be required if the major department so directs.

The candidate is expected to defend the dissertation and, at the discretion of the examining committee, may be questioned on the entire specialized field of study. The oral examination is conducted by a committee of at least four members, composed of at least one representative approved by the Graduate Board and members of the department and nonmembers from within or outside the University appointed by the chair. The chair notifies the dean of graduate studies and research, at least one week in advance, of the time and place of the examination and the composition of the committee. The dean is authorized to invite any person from within or outside the University to be present and to assist in the examination.

Graduation/ Diploma Fee: The fee for the doctor of philosophy degree is $150. It covers the cost of the diploma, hood, publication of the precis in the publication Dissertations and Theses, publication of the abstract in Dissertation Abstracts, and binding of the library copy of the dissertation. It is payable when the dissertation is deposited with the University format advisor.

Nonresident Students: Continuing students who are not registered for courses at Clark are required to register for and pay a nonresident fee of $200 per semester to maintain active status. If fees are unpaid, the student will be dropped from the degree program. (Fees double after three years.) For information on nonresident loan deferment status see Graduate Tuition section.

Doctor of Philosophy in Biomedical Sciences

The Biomedical Sciences Ph.D. Program began in 1975 with the recognition that certain individuals without a standard academic background, but with previous research experience and an outstanding aptitude for independent research, may benefit from a relatively unstructured program leading to the Ph.D. degree. This is a cooperative program involving Clark University, the University of Massachusetts Medical School, Worcester Foundation for Experimental Biology, and Worcester Polytechnic Institute. It utilizes the faculty, facilities, and varied research interests in the biomedically related sciences in the Worcester area. The primary criteria for admission are research ability and potential, and evaluation of applicants is based largely on evidence of their previously performed research. Award of the Ph.D. requires passing of a preliminary examination and presentation and defense of a research thesis. Competence in the major field in preparation for the preliminary examination can be achieved through independent study, directed study, or formal courses. The Ph.D. degree may be awarded by either Clark University or Worcester Polytechnic Institute, although dissertation research may be done at any of the participating institutions under the sponsorship of a faculty member from that institution. Areas for dissertation research reflect the varied research programs of faculty from the participating institutions. These include, but are not limited to: cellular and molecular biology; cell senescence; metabolism, endocrinology, and immunology; pharmacology and experimental pathology; reproductive biology, physiology, neurobiology, and behavioral science; biological engineering, related to nitrogen fixation and development of new symbiotic systems with blue-green algae; biomass and bio-energy (silviculture and fermentation technologies).

Admission: The primary criterion used in selection of students for this program is the demonstrated capacity of the applicant to do independent research. In addition to the application form, applicants submit official transcripts of undergraduate and graduate work, Graduate Record Examination (GRE) scores, three letters of reference, and evidence of outstanding research ability (e.g., publications, abstracts, etc.). More complete information may be obtained from the program director.

Applications and all supporting documents should be submitted to Dr. Joseph Bagshaw, Department of Biology and Biotechnology, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609.

Graduate Grading Policies

The grades of A and B (with plus and minus) are acceptable for graduate credit; anything lower than a B- is not acceptable. A Pass/Fail grading option is possible, where "P" (pass) signifies that the student has performed at a B- or above level. Incompletes are awarded at the discretion of the instructor for a period not exceeding one year.

Graduate Student Services

Graduate Housing

A limited number of on-campus housing spaces are available through the Office of Housing and Residential Programs. Incoming students have priority for this housing. Further details may be obtained from the Office of Housing and Residential Programs, or from academic departments.

Off-campus rooms and apartments for both men and women are available in the immediate area of the University. A limited listing of current housing opportunities is compiled by the Office of Housing and Residential Programs. Students without prior arrangement for University-owned housing are urged to arrive before registration to seek suitable housing in the area.

For information on meal plans, health insurance, and health services, please refer to the section on Life at Clark.

Graduate Tuition and other Charges Academic Year 1998–99

Full-time Graduate Students:
Tuition: $21,300 per academic year (or $10,650 per semester)

In departments that define a full load as four courses per semester, the per-course charge is $2,662.50. The per-course charge varies in some departments according to their specific definition of a full program. Students should contact their department chairs to find out which scale applies.

Part-time Graduate Students:
Tuition is charged on a per-course basis according to the scale used in the student's department (generally $2,662.50 per course).

Special Graduate Students (nondegree candidates):
Tuition: $2,662.50 per course

Tuition and fees differ in the following programs:
Master of Business Administration
Master of Science in Finance
(Contact the Graduate School of Management for further details.)
Master of Arts in Liberal Arts
Master of Public Administration
Master of Science in Professional Communication
(Contact the College of Professional and Continuing Education for further details.)

Other Fees

Health Insurance—payable at registration (mandatory)

Single Students	$522
Student/one eligible dependent	1,191
Student/two or more eligible dependents	1,848
Health Service Fee (optional)	220

Graduation Fee—payable at the time the thesis or dissertation is deposited with the Office of Student Records.

Master's Degrees	100
Doctoral Degrees	150

Students who do not write a thesis or dissertation, including those receiving the degree through an alternative program, must pay this fee no later than the date on which theses are due to the University format advisor (generally, April 10).

Nonresident Fee:	400

Payable Aug. 1 and Dec. 1: $200 per semester. All degree candidates who are not formally enrolled in coursework must pay the nonresident fee each semester until the final copy of the thesis or dissertation is approved by the University format advisor. If these fees are not paid by the close of the fiscal year, the student will be dropped from the program. (Fees double after three years.)

Loan Deferment

Only students enrolled on at least a half-time basis are eligible for student deferment status on college loans. Non-resident graduate students on a half-time bases are limited to two years of student deferment status.

Graduate Scholarships, Fellowships, and Assistantships

Graduate fellowships and scholarships are provided for well-qualified students by the University from endowed funds and from other sources. Financial aid to graduate students also is available in the form of grants from a number of special funds and, in some departments, from sponsored research grants. A limited amount of part-time employment is available in the various offices and departments of the University. Students who receive awards must obtain permission from the department before accepting employment. Application for a scholarship or fellowship to begin in September should be made before Feb. 15 to the chair of the department or director of the program in which the applicant expects to do major work. Late applications, after endorsement by the department, go to the dean of graduate studies and research for final approval.

Research Fellowships

These fellowships may be awarded to graduate students who have fulfilled their residence requirements and who are pursuing a full-time doctoral program on campus.

Teaching Assistantships

Teaching assistants are assigned a variety of duties according to the needs of the department. Responsibilities include conducting discussion sessions, supervising laboratory sections, holding tutorial sessions, and grading papers and projects. Assistantships typically involve a commitment of approximately half time (an average of 17-1/2 hours a week). A tuition-remission scholarship or fellowship accompanies this award, and a usual stipend is $8,200 to $14,000, depending on program or department. The stipend is paid over a nine- or 10-month period, again according to department policies.

Note that the departments of biology, chemistry, economics, English, geography, history, physics, and psychology require teaching experience for graduate degrees. Teaching assistants may not hold outside employment.

Assistantships

Assistantships are available in several departments. Assistantships involve a variety of services, including research with appropriate stipends, and usually provide the student with experience that will be useful in later professional work.

Graduate Fellowship, Scholarship, and Department Funds

Stipends for fellowships and scholarships are provided by endowed funds. For further information about these funds, contact the Graduate School Office.

Research Centers and Institutes

The George Perkins Marsh Institute was founded in 1991 to conduct collaborative, interdisciplinary research on human-environment relationships, especially the human dimensions of global environmental change. While not a teaching facility, the Institute is dedicated to training a new generation of researchers and practitioners in holistic approaches to environmental assessment and management through their involvement in a variety of research projects. The Institute is directed by geographer B.L. Turner and includes more than 60 researchers and students from the social sciences, sciences, and humanities.

The Institute houses the Marsh Library and four research centers. The Marsh Library is a unique resource of the Institute and offers one of the most extensive collections of research materials in North America on natural and technological hazards and environmental change. The Library holds more than 25,000 volumes (including technical reports, government reports, scholarly books, court cases, and regulatory proceedings), more than 750 journals and newsletters, and various special collections on international development, water resources and energy. The entire catalogued collection is machine retrievable and the librarian is an active researcher and contributor to the fields of hazard assessment and environmental change.

Founded in 1987, *The Center for Technology, Environment and Development* (CENTED) is internationally recognized as one of the oldest and most prominent centers for the study of natural and technological hazards in the United States. Interdisciplinary research has always been CENTED's forte, with current projects ranging from theoretical work on hazard analysis, hazard taxonomies, vulnerability, environmental equity, comparative risk assessment, and risk participation, corporate risk management, hazardous waste transportation and emergency planning. Other research emphases are the central role of urbanization and the related processes of economic and industrial change in defining the impacts of human systems on the global environment, as well as the interaction of land and water-resource use systems with social and ecological change. For example, projects include an examination of gender and land/water use in East Africa, and a comparison of the perceptions of global change in the U.S. with perceptions in Russia.

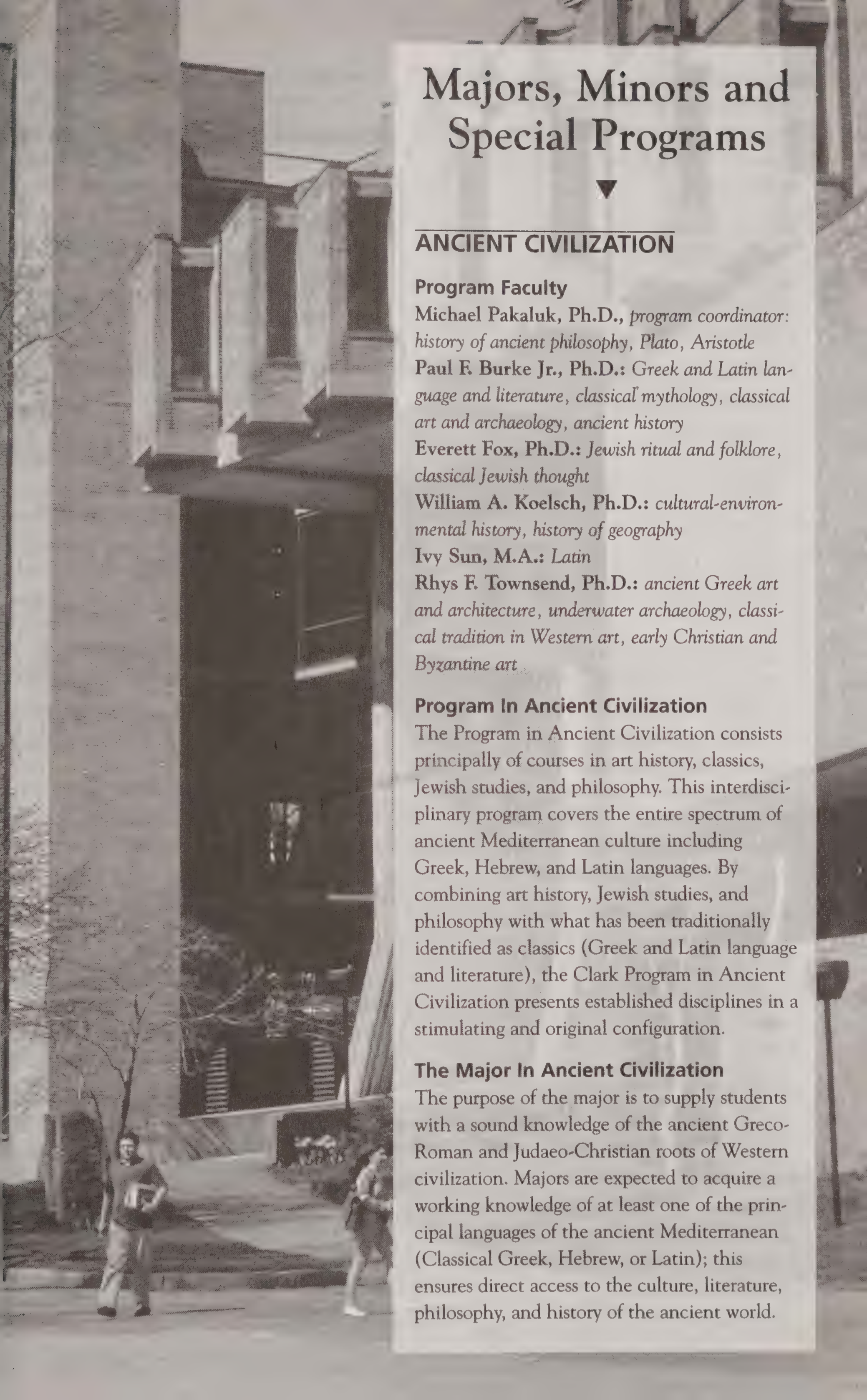
The Clark Labs for Cartographic Technologies and Geographic Analysis (Clark Labs) is an international leader in the development of computer software and analytical techniques for monitoring and modeling environmental change. Clark Labs continues to develop and distribute IDRISI, a Geographic Information System (GIS) software package that is in use at more than 10,000 sites in over 100 countries worldwide. The faculty of the Center for Community-Based Development have developed extensive, collaborative working relationships with African institutions focusing on the themes of resources management and institution building. The Center has recently expanded work to Asia and Latin America and broadened its themes to include deep involvement in gender issues, local participation, community institutions, and rural development. Research has focused on slowing and reversing environmental degradation throughout Asia, Africa and Latin America.

The Regional Analysis and Planning (RAP) *Center* conducts research on regional development problems to assist decision makers on planning and policy issues in Third World countries. It incorporates a range of methods and approaches, relying heavily upon computer-assisted technologies (geomatics) which emphasize spatial modeling perspectives. The Center works with the U.S. Agency for International Development and has considerable experience in regional analysis and provides research to Third World countries seeking assistance on regional planning.

The Jacob Hiatt Center for Urban Education was created in 1991 through a substantial endowment as a permanent partnership between Clark University and the Worcester Public Schools. The center brings together Clark researchers and public school teachers and administrators to find innovative ways to address the challenges and possibilities of contemporary urban schools, especially in light of the diverse cultural backgrounds of the students they serve. The center fosters the work of an interdisciplinary group of scholars and teachers, focusing on studies of language, culture, and learning. It supports teachers as researchers and educational leaders and has developed an innovative teacher education program and a close relationship with six demonstration schools in the city. The center seeks to set a new vision and standard for urban education nationwide. Dr. Sarah Michaels directs the center.

The Heinz Werner Institute for Developmental Analysis is devoted to the application of developmental analysis to all psychological and psychocultural phenomena. The institute is named for Heinz Werner (1890-1965), one of the leading psychologists of the past half century, and the first chairman of the Board of Directors of the Institute of Human Development, founded at Clark in 1957. The institute encourages interdisciplinary conferences and research cooperation among all groups whose primary interest is in the promotion of human development. Dr. Seymour Wapner is chair of the institute's Executive Committee.

The Institute for Economic Studies began its operation in January 1980. The institute is an integral part of the Economics Department, and its main objectives are to research significant economic issues, propose policy options to deal with them, and disseminate the results of the research—particularly its policy recommendations—to a broad audience. The institute provides a framework within which new curricula and teaching methods are developed. In addition, a Scholar-in-Residence Program was instituted in 1984 to stimulate the exchange of ideas and dialogue between guest scholars and members of the institute and economics faculty. The institute director is Attiat F. Ott.



Majors, Minors and Special Programs

▼

ANCIENT CIVILIZATION

Program Faculty

Michael Pakaluk, Ph.D., *program coordinator: history of ancient philosophy, Plato, Aristotle*
Paul F. Burke Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology, ancient history*
Everett Fox, Ph.D.: *Jewish ritual and folklore, classical Jewish thought*
William A. Koelsch, Ph.D.: *cultural-environmental history, history of geography*
Ivy Sun, M.A.: *Latin*
Rhys F. Townsend, Ph.D.: *ancient Greek art and architecture, underwater archaeology, classical tradition in Western art, early Christian and Byzantine art*

Program In Ancient Civilization

The Program in Ancient Civilization consists principally of courses in art history, classics, Jewish studies, and philosophy. This interdisciplinary program covers the entire spectrum of ancient Mediterranean culture including Greek, Hebrew, and Latin languages. By combining art history, Jewish studies, and philosophy with what has been traditionally identified as classics (Greek and Latin language and literature), the Clark Program in Ancient Civilization presents established disciplines in a stimulating and original configuration.

The Major In Ancient Civilization

The purpose of the major is to supply students with a sound knowledge of the ancient Greco-Roman and Judaeo-Christian roots of Western civilization. Majors are expected to acquire a working knowledge of at least one of the principal languages of the ancient Mediterranean (Classical Greek, Hebrew, or Latin); this ensures direct access to the culture, literature, philosophy, and history of the ancient world.

Majors are also eligible to apply for admission to the Intercollegiate Center for Classical Studies in Rome, where they can spend a semester studying Classical literature and archaeology.

Requirements

To graduate as an ancient civilization major, a student must complete with a C- grade or better at least 10 courses in ancient civilization. These courses must include:

1. At least two courses, from different departments, from among this group of foundation courses:
   Art History 110, Ancient Greek Art
   Classics 111, Roman Art and Architecture
   Classics 121, Introduction to Greek Culture
   History 174, The Jewish Experience
   Philosophy 141, History of Ancient Greek Philosophy
2. At least one semester course at or above the intermediate level (language 103) in Greek, Hebrew, or Latin.
3. A one-semester senior seminar, to be taken preferably during the second semester of the senior year, including a major research paper, arranged in consultation with at least two members of the program faculty by the end of the junior year.

Minor in Ancient Civilization

An interdepartmental minor in Ancient Civilization consists of a total of six courses listed below, or other courses approved for the minor by program faculty. These courses must include:

1. At least two courses, from different departments, from the group of foundation courses listed above.
2. At least two 200-level courses.

Students minoring in Ancient Civilization are strongly encouraged (but are not required) to study Latin, Greek, or Hebrew for their remaining two courses.

Courses

A. Art History

105 The Aegean World

See Art History 105. Mr. Townsend/Offered every other year

106 Introduction to Archaeology

See Art History 106. Mr. Townsend/Offered every other year

109 Classical Myth and the Greek Ideal in Art

See Art History 109. Mr. Townsend/Offered every other year

110 Ancient Greek Art

See Art History 110. Mr. Townsend/Offered every other year

114 Ancient Cities and Sanctuaries

See Art History 114. Mr. Townsend/Offered every other year

215 The Temple Builders: Architecture in Ancient Greece

See Art History 215. Mr. Townsend/Offered periodically

219 Special Topics: Ancient Art

See Art History 219. Mr. Townsend/Offered periodically

B. Classics

GREEK

101/102 Introductory Greek

See Foreign Languages and Literatures/Classics. Mr. Burke/Offered every year

299 Supervised Reading in Philosophical Greek

A study of selected philosophical texts in Greek. Mr. Pakaluk/Offered every semester

LATIN

101/102 Introductory Latin

See Foreign Languages and Literatures/Classics. Staff/Offered every year

299 Supervised Reading in Philosophical Latin

A close reading of selected philosophical texts in Latin. Mr. Pakaluk/Offered every semester

CLASSICS COURSES TAUGHT IN ENGLISH

005 Romans and Barbarians/Lecture, Discussion, Field Trips

Surveys the introduction of urbanism to Europe north of the Alps by the Romans, and the transforming effects of this act upon the society, politics, language, and religion of Western Europe. Offered at Clark's European Center in Luxembourg; includes trips to archaeological sites studied. Student journals take the place of formal examinations.
Mr. Burke/Offered every other year

100 Ancient Greece and Perseus/First-year seminar

Surveys ancient Greek culture, art, archaeology and religion from Bronze Age to Hellenistic kingdoms. Texts include Homeric epics, Greek tragedies and Plato's "Apology" of Socrates. Students use the interactive CD-ROM Perseus system, an electronic, multimedia library of ancient Greek literature, history, art and archaeology. Mr. Burke/Offered every other year

111 Roman Art and Architecture/Lecture, discussion

Surveys artistic and architectural accomplishments of ancient Rome and the Roman Empire, beginning with the origins of Rome in Bronze Age central Italy. Studies Roman relations with Etruscans, Greeks, and other non-Latin-speaking peoples as manifested in Roman art and architecture. Examines effects of Judaeo-Christian values on the formerly pagan Empire, appearance of a Christian Roman government, and development of distinctively Christian forms of Roman art and architecture.
Mr. Burke/Offered every other year

124 Introduction to Classical Mythology/Lecture, Discussion

Studies English translations of ancient Near Eastern, Greek, and Roman literary text (along with some modern ones) to understand the function of myth in Greco-Roman antiquity as a vehicle for artistic communication and social commentary. Emphasizes influence of ancient mythology on later European culture, especially literature and art. Includes slide illustrations.
Mr. Burke/Offered every year

135 Classical Greek Tragedy/Lecture, Discussion

Surveys tragic drama in classical Greece: the distinctive role of drama in ancient Greek society, staging and production of classical tragedy, and problems of interpreting English-translated plays by Aeschylus, Sophocles, and Euripides.
Mr. Burke/Offered every year

150 Jerusalem in History and Imagination/Lecture, Discussion

Surveys fortunes and forms of Jerusalem from Bronze Age to present day. Examines the political and religious visions for the city (pagan, Jewish, Christian, Muslim) and the secular and religious aspirations of these groups as they have become inextricably entangled with the history of the city. Mr. Burke and Mr. Fox/Offered every other year

157 The Age of Nero/Lecture, Discussion

Studies the first century of Roman Imperial society, particularly the reign of the emporer Nero (A.D. 54-68). Emphasizes historical, social, and cultural results of consolidation to totalitarian rule in Rome, a form of governement that dominated the Mediterranean world and most of Europe for four centuries.
Mr. Burke/Offered every other year

262 Jews and Christians in the Ancient World

A historical and cultural survey of the complex and tumultuous period between foundations of the Roman Empire and the sixth century A.D., when medieval culture was established in Europe. Studies the struggle between pagan or classical modes of thought and Judaeo-Christian beliefs and values, and the assimilation of each in the other; and the tension within the Christian movement between spiritual and practical concerns as the new religion came to dominate Western culture. Mr. Burke/Offered every other year

267 RELIGIOUS EXPERIENCE IN THE ANCIENT WORLD/LECTURE, DISCUSSION
Studies religious experience available to people of the ancient Mediterranean from approximately the time of Homer to the official acceptance of Christianity by Roman Imperial government. Includes: nature of polytheist gods, prophecy and oracles, conversion and spread of religious belief, Jewish and Christian monotheism, evil in ancient religious thought, and the rise of Christianity. Mr. Burke/Offered every other year

283 NATURE AND CULTURE IN THE ANCIENT WORLD/DISCUSSION
See Geography 283. Mr. Koelsch/Offered every other year

C. Jewish Studies

HEBREW

101/102 ELEMENTARY HEBREW
See Foreign Languages and Literatures/Hebrew. Staff/Offered every year

103 INTERMEDIATE HEBREW
See Foreign Languages and Literatures/Hebrew. Staff/Offered every year

104 INTERMEDIATE/ADVANCED HEBREW
See Foreign Languages and Literatures/Hebrew. Staff/Offered every year

JEWISH STUDIES COURSES TAUGHT IN ENGLISH

123 THE MIDRASHIC TRADITION
See Jewish Studies. Mr. Fox/Offered every other year

D. Philosophy

141 HISTORY OF ANCIENT GREEK PHILOSOPHY
See Philosophy 141. Mr. Pakaluk/Offered every year

250 PLATO/SEMINAR
See Philosophy 250. Mr. Pakaluk/Offered every other year

251 ARISTOTLE/SEMINAR
See Philosophy 251. Mr. Pakaluk/Offered every other year

E. History

150 JERUSALEM IN HISTORY AND IMAGINATION
See Ancient Civilizations 150. Mr. Burke and Mr. Fox/Offered every other year

174 THE JEWISH EXPERIENCE
See History 174. Staff/Offered every year

276 MODERN JEWISH HISTORY AND THOUGHT
See History 276. Staff/Offered every other year

F. Comparative Literature

120 THE EPIC JOURNEY
See Comparative Literature 120. Mr. Burke/Offered every other year

G. Geography

174 GREEKS AND BARBARIANS IN THE ANCIENT ECUMENE
See Geography 174. Mr. Koelsch/Offered every other year

BIOCHEMISTRY & MOLECULAR BIOLOGY

Program Faculty

David L. Thurlow, Ph.D., *program director: RNA-protein interactions*
Frederick Greenaway, Ph.D.: *bioinorganic chemistry, magnetic resonance*
Denis A. Larochelle, Ph.D.: *cell biology, cytokinesis*
Donald J. Nelson, Ph.D.: *protein chemistry, pharmacology*
Timothy A. Lyerla, Ph.D.: *somatic cell genetics*
Thomas J. Leonard, Ph.D.: *molecular biology, microbial genetics*
Justin R. Thackeray, Ph.D.: *molecular biology, genetics*

Affiliate Faculty

George E. Wright, Ph.D.: *pharmacology, drug-DNA polymerase interactions*

Emeritus Faculty

John J. Brink, Ph.D.: *metabolic regulation, pharmacology, neurochemistry*

Undergraduate Program

The Biochemistry and Molecular Biology Program offers an interdisciplinary major that draws on the faculty and course resources of the departments of Biology and Chemistry. Designed to provide students with an in-depth exploration of an area of science that is perhaps the most exciting and actively growing of any today, the program is suitable for students who want to (1) pursue graduate studies in the area, (2) enter medical school with a strong background in basic science, or (3) take laboratory or other science-related positions after graduation. Those wishing to major in biochemistry and molecular biology must select an advisor within the program and file a plan of study with the program director.

Major Requirements

Students first obtain a solid grounding in biology, chemistry, physics, and calculus and then take biochemistry, a year-long course sequence that covers our current understanding of the field. After that, there is a choice between two "tracks," or alternative ways to complete the major, depending on the individual's interests.

The core curriculum consists of the following required courses:

Introduction to Calculus (Math 120 and 121, or 124 and 125)
Introduction to Physics (Phys 110 and 111, or 110 and 112)
Introductory Chemistry (Chem 101 and 102)
Introduction to Biology (Biol 101 and 102)
Genetics (Biol 110)
Cell Biology (Biol 137) or Microbiology (Biol 109)
Organic Chemistry (Chem 131 and 132)
Physical Chemistry I (Chem 260)
Biochemistry I and II (Bcmb 271 and 272)

The student will also complete one of the following two groups of courses, emphasizing either biochemistry or molecular biology:

Courses required for the biochemistry track:
Bioanalytical Chemistry (Bcmb 144)
Biophysical Chemistry (Bcmb 264)

Courses required for the molecular biology track:
Molecular Genetics (Bcmb 228) or
Structure and Function of Nucleic Acids (Bcmb 276)
Recombinant DNA (Bcmb 231)

Students must also complete two additional courses related to biochemistry and molecular biology. This requirement may be satisfied with any of the program offerings, a directed research course, any biology or chemistry course in the list above (and not already used to fulfill a requirement), or other biology or chemistry courses approved by the advisor.

Honors Program

A student interested in the honors program should contact the program faculty member with whom the student would like to do research, and then apply in writing to the program director for admission. A "B" average is required. In addition to the course requirements listed above, honors candidates must:

(a) Carry out a research project under the supervision of a faculty member in the Biochemistry and Molecular Biology Program,

(b) Submit an honors thesis or publication based on the research project,

(c) Present the research results in a public seminar, and

(d) Pass a comprehensive oral examination. Students are encouraged to begin their research in the summer following the junior year, if not earlier.

Courses

070 PRESERVING GENOMES/FIRST-YEAR SEMINAR
See Chemistry 070 Mr. Thurlow/Offered every other year

144 BIOANALYTICAL CHEMISTRY/LECTURE, LABORATORY
Presents both theoretical and practical aspects of quantitative analysis in biological systems. Topics include: chromatography, electrophoresis, immunochemistry, ultracentrifugation, absorption and fluorescence, enzyme analyses, and

radioactivity counting procedures. Prerequisite: Chemistry 132. Mr. Nelson/ Offered every other year

228 MOLECULAR GENETICS/LECTURE, SEMINAR
Explores recent discoveries in the molecular genetics of prokaryotes and eukaryotes, with emphasis on new findings from recombinant DNA technology and DNA sequencing. Topics include: protein synthesis, RNA transcription, gene regulation, repetitive DNA, gene cloning, split genes, gene families, transposable elements, oncogenes, and antibody gene rearrangement. Intended primarily for seniors and graduate students. Prerequisite: Bcmb 272 or Biology 118 or permission of instructor. Mr. Thurlow/Offered every other year

231 RECOMBINANT DNA/LECTURE, LABORATORY
A laboratory-oriented course designed to introduce recombinant DNA methodology. Students undertake a semester-long project, which will vary each time the course is offered. A typical project might involve construction of a genomic library, isolation of specific clones from the library, and characterization of these clones. Methods usually include DNA purification, Southern blot hybridization, restriction enyme mapping, bacterial transformation, polymerase chain reaction (PCR) and DNA sequencing. Prerequisite: Biology 118, or permission of instructor. Mr. Thackeray/Offered every year.

252 BIOINORGANIC CHEMISTRY/LECTURE
Discusses the chemistry of metals in biological systems and models of these systems. There is a lengthy introduction to general principles and theories of inorganic chemistry and of metal ion and drug transport in biological systems. This is followed by an introduction to physical techniques used in studying metalloproteins. The major part of the course is a discussion of the application of these principles and methods by way of a survey of metallobiological systems. Prerequisite: Permission of instructor. Mr. Greenaway/ Offered periodically

264 BIOPHYSICAL CHEMISTRY/LECTURE, LABORATORY
Offered as an alternative to Chemistry 262. Emphasizes the physical chemistry of biological systems: enzyme kinetics, spectroscopy of biological systems, macromolecules, transport processes, and x-ray diffraction. Prerequisite: Chemistry 260. Mr. Nelson/Offered every other year

271 BIOCHEMISTRY I/LECTURE, LABORATORY

272 BIOCHEMISTRY II/LECTURE
This two-semester course provides a comprehensive and up-to-date survey of the field of biochemistry. The first semester covers cell metabolism and protein structure and function; the second semester deals with nucleic acid, protein metabolism, and other topics. A laboratory component for the first semester acquaints students with methods and instrumentation used in biochemical research. Prerequisites: Biology 101, 102, and Chemistry 132. Mr. Nelson, Mr. Thurlow/ Offered every year

275 PROTEIN CHEMISTRY/LECTURE
Discusses the structure and function of biologically important macromolecules. Particular emphasis is placed on proteins (enzymes and noncatalytic proteins), protein synthesis from nucleic acids, and the structure and function of biological membranes. Prerequisite: Chemistry 132. Mr. Nelson/Offered every other year

276 STRUCTURE AND FUNCTION OF NUCLEIC ACIDS/LECTURE, SEMINAR
Discusses principles of nucleic acid structure, including types of helices, primary structure, secondary structure, and supercoiling. Students discuss papers relating the principles of structure to a particular function such as storage and expression of information, catalysis, and evolution of the genetic code. Prerequisite: Biochemistry 272. Mr. Thurlow/Offered every other year

299, SEC. 1 DIRECTED READINGS/DISCUSSION
Advanced readings in scientific literature under the direction of a professor. Prerequisite: permission of instructor. Staff/Offered every semester

299, Sec. 2 Directed Research/Laboratory
Individual investigations involving laboratory research under the direction of a professor. Offered for variable credit. Prerequisite: permission of instructor. Staff/Offered every semester

299, Sec. 9 Internship
Internships are arranged through the Internship Office within the Office of Career Planning and Services. Students may register under Bcmb 299.9 provided that the Clark internship supervisor is a member of the Biochemistry and Molecular Biology Program. Staff/Offered every semester

BIOLOGY

Program Faculty

Thomas J. Leonard, Ph.D., *chair: developmental genetics, secondary metabolism*
Susan A. Foster, Ph.D.: *evolution, behavior and ecology*
H. William Johansen, Ph.D.: *phycology, marine biology*
Linda M. Kennedy, Ph.D.: *physiology, neuroscience, sensory function, taste*
Denis A. Larochelle, Ph.D.: *cell biology, molecular biology*
Todd P. Livdahl, Ph.D.: *population biology, community ecology, evolution, biostatistics*
Timothy A. Lyerla, Ph.D.: *vertebrate development and genetics, somatic cell genetics*
Justin R. Thackeray, Ph.D.: *molecular biology, genetics, signal transduction*
Nicholas S. Thompson, Ph.D.: *animal behavior, evolutionary theory*

Adjunct Faculty

Charles H. Blinderman, Ph.D.: *history of biology, Darwinism, human evolution*
Halina S. Brown, Ph.D.: *health and risk assessment, environmental chemistry, regulatory toxicology*
Frederick T. Greenaway, Ph.D.: *bioinorganic chemistry, enzymology*
Stanley R. Herwitz, Ph.D.: *hydrology, soil/water plant relationships, biogeography, field methods and instrumentation*
Donald J. Nelson, Ph.D.: *biochemistry, bioinorganic chemistry*
David L. Thurlow, Ph.D.: *molecular biology*

Affiliate faculty

Clayton B. Cook, Ph.D.
Craig Ferris, Ph.D.
Philip Robakiewicz, Ph.D.

Emeritus Faculty

Vernon Ahmadjian, Ph.D.
John J. Brink, Ph.D.
Joseph C. Curtis, Ph.D.
John T. Reynolds, Ph.D.

Undergraduate Program

The department offers courses that (1) prepare students for work and advanced study in the biological and biomedical sciences, (2) provide support for other programs within the University that require students to obtain a background in one or more subfields of biology, and (3) meet the needs of nonscience majors who wish to integrate the perspectives of the science of biology into a liberal arts curriculum. The major in biology is especially suitable for students who intend to go on to professional schools in the health sciences or graduate work in a variety of subfields of the biological sciences.

The department provides a set of requirements for students wishing to optimize their breadth of exposure to the field as a whole. The department encourages students to identify an area to emphasize within biology, and to plan a sequence of courses that will provide depth of exposure to the topics within that area, including a research experience, if possible.

The department offers two general curricula: one in Cell and Molecular Biology (including Neuroscience) and one in Ecology & Evolution. Prospective majors are urged to consult with an advisor selected from the department's faculty, especially to take advantage of opportunities to participate in ongoing research in the honors program, specialized research courses, and internships.

Please note that the two-semester course, Introduction to Biology (Biology 101 and 102) is a prerequisite for all other courses in biology that will be used to meet the requirements for the major.

Requirements for the Generalized Biology Major

- 10 courses in biology, including Biology 101 and 102 (see below)
- Two courses in chemistry (Chemistry 101 and 102)
- Courses in mathematics to include a year of calculus (Mathematics 120 and 121, or Mathematics 124 and 125)
- Two additional courses in chemistry, geology, mathematics or physics, at the 100 level or higher
- Nine courses outside the fields of biology, chemistry, geology, mathematics, or physics
- Science and mathematics courses offered to meet the major requirements may not be taken with a pass option

At least two of the 10 required biology courses must be at the 200 level or above, and one must be completed in each of the following areas:

1. Cellular and molecular biology, including Genetics (Biology 118), Cell Biology (Biology 137), Biochemistry (Biology 271)
2. Organismal biology, including Microbiology (Biology 109), Introduction to Plant Biology (Biology 110), Biology of the Brain (Biology 140), Comparative Vertebrate Morphology (Biology 112), Animal Behavior (Biology 242)
3. Population biology, including Biodiversity (Biology 104), Marine Biology (Biology 114), Ecology (Biology 216), Population Biology (Biology 220), Evolution (Biology 105)

Requirements for the Curriculum in Ecology & Evolution

- Chemistry 101, 102
- Mathematics (120, 121) [i.e., one year of calculus]
- Two additional science courses chosen from the following: Chemistry 131, 132 (organic chemistry), Chemistry 142 (environmental chemistry), Physics 110, 111 (introductory physics), Physics 115 (computer simulation), Physics 130 (energy sources and systems), Geology 100 (introduction to geology), Earth Systems Science (ES 121, see course description in Environmental School listings), Mathematics 130 (linear algebra), Mathematics 131 (multivariate calculus)
- Two semesters of introductory biology (Biology 101, 102)
- Ecological Systems (ES 122, see course description in Environmental School listings) or Biology 105 (Evolution)
- Two courses that are primarily informational in content, aimed at describing a wide variety of aspects of the natural environment or evolution, including Biology 103 (Biogeography), Biology 104 (Biodiversity), Biology 110 (Introduction to Plant Biology), Biology 112 (Comparative Vertebrate Morphology), Biology 114 (Marine Biology), Biology 242 (Animal Behavior)
- Two courses with an analytical or theoretical orientation, including Biology 118 (Genetics), Biology 135 (Paradox of Animal Sociality), Biology 216 (Ecology), Biology 220 (Population Biology)
- One course that develops research techniques: Biology 109 (Microbiology), Biology 200 (Laboratory in Ethology), Biology 280 (Biostatistics and Computer Applications), Biology 213 (Forest Hydrology Field Methods)
- One seminar course: Biology 222 (Community Ecology), Biology 204 (Watershed Ecology), Biology 223 (Topics in Marine Biology), Biology 282 (Animal Social Life), Biology 243 (Seminar in Evolution)
- Capstone project: at present, this can be fulfilled through a directed research project with one of the faculty members on the curriculum committee, or an internship in an area relevant to ecology and evolution, as approved by the curriculum committee.

Special Field Courses

Clark University maintains formal affiliations with the following organizations, enabling students to apply for admission and preferential financial aid consideration for two special course programs. Courses from these organizations can be taken in place of other courses required for either the generalized biology major or the curriculum in Ecology & Evolution.

The Bermuda Biological Station is an internationally renowned center for marine biological and oceanographic research. One course each year (Marine Biodiversity, COPACE) uses the Biological Station as a site for field trips; in addition, intensive summer field courses are available for qualified Clark students (Biological Oceanography, Coral Reef Ecology, Molecular Ecology and Physiology of Marine Symbioses, Tropical Marine Invertebrates, Biology of Fishes, Hazard Assessment of Marine Contaminants). Any of these courses can be taken for biology major credit.

The School for Field Studies operates six centers at which semester-long field-oriented courses may be taken for four credit units:

- The Center for Rainforest Studies (Australia)
- The Center for Marine Resource Studies (Turks and Caicos Islands, Caribbean)
- The Center for Wildlife Management Studies (Kenya)
- The Center for Wetland Studies (Baja, Mexico)
- The Center for Sustainable Development Studies (Costa Rica)
- The Center for Coastal Studies (British Columbia, Canada)

Clark students are also eligible for admission into summer courses at these centers. Students interested in taking any of these courses for credit toward the major must first take at least one course in either the organismal or population areas (biology course categories 2 or 3 described above).

The specific course offerings at the Bermuda Biological Station and the School for Field Studies may change each year. Recent, detailed information on the School for Field Studies and the Bermuda Biological Station is available in the department office. Students who wish to apply for these or other off-campus course programs are urged to consult with their advisor or department chairman to ensure that the program will satisfy the student's needs for a well-planned biology major.

Honors Program

Well-qualified upper-division majors are eligible for admission to a program that can lead to a bachelor of arts degree with honors. A candidate for honors must meet all requirements of the major, maintain a high grade point average, complete an independent research project under the direction of a departmental faculty member, prepare an acceptable thesis, and pass a final comprehensive examination. The criteria for admission into the honors program are outlined in material available from the department.

Minor in Biology

The requirements for a minor in Biology are:

1.BIO 101 and 102 Introductory Biology

2.Any four of the following. At least one of the four must be at the 200 level:
    BIO 104 Biodiversity or BIO 110 Intoduction to Plant Biology
    BIO 105 Evolution
    BIO 109 Microbiology
    BIO 118 Genetics
    BIO 137 Cell Biology
    BIO 216 Ecology
    BIO 240 Human Physiology
    BIO 242 Animal Behavior

B.A./M.A. Degree Program

This plan, which enables students to complete the requirements for the bachelor of arts and the master of arts degrees within five years, is intended for students who develop sharply focused research interests. Undergraduates who will have completed the chemistry, mathematics, and physics requirements for the biology major by the end of their third year may apply for admission to this program during the second semester of their third year.

Students accepted into the program will be advised individually by a committee of faculty members who will set forth the specific course requirements and research expectations for the master's portion of the program. Courses taken at the 200 level or higher may be counted toward the course requirements for both the bachelor's degree, which will normally be awarded after the fourth year, and the master's degree, normally awarded after the fifth year.

A successful preliminary examination, submission of a thesis, and a final examination based on the contents of the thesis are required of all master's degree recipients. Specific requirements of the program and application procedures are available in the department office.

Graduate Programs

The department offers course work leading to the master of arts and doctor of philosophy degrees in biology. The department has three foci for graduate emphasis: molecular and cell biology, neurobiology, or ecology and evolution.

All students admitted to the department's graduate program are assumed to be working toward the doctoral degree, but it may be appropriate for some students to complete the master's program before beginning doctoral work. Students applying for admission to either program must demonstrate adequate preparation in the basic sciences, an overall undergraduate record of B or better, and satisfactory scores on the Graduate Record Examination. Tuition scholarships and research and teaching assistantships are available to qualified students. Further information can be obtained from the department chair.

Master of Arts

A candidate for the master of arts degree must complete three to four semesters of academic work, pass a qualifying examination before the end of the second semester in residence, acquire teaching and research experience, and defend an acceptable thesis. Specific requirements for individual students will be determined by the faculty advisors.

Doctor of Philosophy

Qualified students may be admitted into the doctoral program. The minimal requirements for a candidate for the doctoral degree are determined by the University and can be found in the Graduate School section of this catalog. Additional requirements and the details of individual programs will be determined by the student's advisory committee.

Courses

101 INTRODUCTION TO BIOLOGY I/LECTURE, LABORATORY

102 INTRODUCTION TO BIOLOGY II/LECTURE, LABORATORY

This two-semester course is designed with three goals in mind: (1) to provide students with an understanding of the unifying themes in modern biology, (2) to introduce students to the diversity of life forms at all levels of organization, and (3) to illustrate the methods and modes of scientific inquiry in the biological sciences. The emphasis is on organismic and evolutionary biology during one semester and on cellular and molecular biology during the other semester. Both semesters must be completed before a student can enroll in advanced courses offered to satisfy the requirements of the biology major. Qualified students must obtain approval from the chair of the department to have this requirement waived. Staff/Offered in sequence every year

103 BIOGEOGRAPHY/LECTURE

Past and present geographical distributions of plant and animal species are considered in relation to continental drift, species interactions, dispersal strategies, biological evolution, and human activity. Island biogeography and the biogeography of tropical vascular plants are emphasized. Prerequisites: Biology 101 and 102. Mr. Herwitz/Offered every year

104 BIODIVERSITY/LECTURE

Gives students an opportunity to explore the diversity of life on earth. Topics include biodiversity through the ages, human biodiversity, changing environments and problems in biodiversity. Includes lectures, paper assignments and field trips. Prerequisites: Biology 101 and 102. Mr. Johansen/Offered every year

105 EVOLUTION/LECTURE, LABORATORY, DISCUSSION

An introduction to the mechanisms and patterns of evolutionary change during the earth's history. Although this course will briefly survey the major evolutionary events that have occurred since life first evolved, the emphasis will be on mechanisms of evolutionary change (e.g. mutation, natural selection, genetic drift and gene flow) and resultant patterns (e.g. phylogenetic pattern, co-evolution, stasis, adaptive radiation). Prerequisites: Biology 101 and 102. Ms. Foster/Offered every year

109 MICROBIOLOGY/LECTURE, LABORATORY

Introduces the fundamental principles and methods of microbiology with applications to the biomedical and environmental sciences. Emphasis is on bacteriology. Prerequisites: Biology 101 and 102 and Chemistry 102, or permission of instructor. Mr. Leonard/Offered every year

110 INTRODUCTION TO PLANT BIOLOGY/LECTURE, LABORATORY

Structure, development, and evolutionary relationships of plants are examined along with plant functions such as photosynthesis, communication, and transport. Aspects of the molecular biology of plants, plant ecology, genetics, hormones, and nutrition are discussed. The diversity of plants is reviewed, as is their role in symbiosis and genetic engineering. Protists, fungi, and bacteria are considered in relation to plants. Prerequisites: Biology 101 and 102. Staff/Offered every year

112 COMPARATIVE VERTEBRATE ANATOMY/LECTURE, LABORATORY

A review of the morphology of the vertebrates with emphasis on evolution from fishes to mammals. Anatomical analyses of organ systems are stressed. Prerequisites: Introductory Biology at the college level. Mr. Lyerla/Offered every year

114 MARINE BIOLOGY/LECTURE, FIELD TRIPS

Introduces the diversity and ecology of life in the oceans. Studies of basic physical oceanography and marine ecology precede studies of marine ecosystems such as salt marshes, kelp forests, rocky shores, plankton, and deep seas. Also included are the relationships of marine biology to the welfare of mankind. Prerequisites: Biology 101 and 102. Mr. Johansen/Offered every year

118 GENETICS/LECTURE, DISCUSSION

Covers Mendelian analyses, the molecular nature and function of the gene, gene and chromosome mutation, genetic mapping in eukaryotes and prokaryotes, population genetics and quantitative genetics. Prerequisites: Biology 101 and 102. Mr. Thackeray/Offered every year

135 THE PARADOX OF ANIMAL SOCIALITY/LECTURE, DISCUSSION

See Psychology 135. Prerequisites: Biology 101 and 102. Mr. Thompson/Offered every year

137 CELL BIOLOGY/LECTURE, LABORATORY

The cell as a functional unit is discussed from the molecular level to the whole cell. Included are introductions to the biochemistry and metabolic roles of some of the molecules and macromolecules that are found in cells. Also discussed are the evolution, structure, and function of the various subcellular organelles and the cytoskeleton. Emphasis is placed on understanding the molecular mechanisms behind cell physiology and the experimental methods used to determine those mechanisms. Prerequisites: Biology 101 and 102. Mr. Larochelle/Offered every year

140 BIOLOGY OF THE BRAIN/LECTURE, LABORATORY, DISCUSSION

An introduction to the organization and function of the nervous system. Lectures focus on the human brain with reference to knowledge obtained from animal models. Includes basic information about the anatomical, physiological and chemical properties of the brain and how these properties enable us to perceive and move around in our environment.

Laboratory/Discussion sessions include demonstrations of nerve cell signalling, testing of human reflexes and sensory perception, dissections, and discussion of issues that arise in modern neuroscience: understanding the relation between the mind and brain.

Prerequisites: Biology 101 or permission of instructor. Ms. Kennedy/Offered every year

141 Brain and Behavior/Lecture, Discussion, Laboratory

An exploration of how specific neural systems are involved in various behaviors. Emphasizes first, systems where the relationships between brain and behavior are best understood, such as perception, motivation, mood, emotion, sleep and consciousness, language and attention. Second, information from the frontiers of neuroscience about how the biology of the brain changes as the result of the experiences of the individual, including mechanisms for learning and memory, is discussed. Laboratory consists of original research, as a group, on an unsolved problem in modern neuroscience. Prerequisite: Biology 140. Ms. Kennedy/Offered every year

170 Nutrition and Metabolism/Lecture

Human health is studied from the perspective of the chemistry of biological regulatory processes. The basic components of food are presented, and their biological function of maintaining human growth and vitality is studied. The role of food additives and cultural variations in diet in regard to pathology is discussed. Prerequisites: Biology 101, 102, Chemistry 101, and 102. Mr. Brink/Offered every other year

200 Laboratory in Ethology

See Psychology 200. Prerequisites: Biology 101 and 102. Mr. Thompson/Offered periodically

204 Watershed Ecology/Lecture, Discussion

Advanced seminar examining current scientific literature on the biogeochemistry of contrasting forested ecosystems. Topics include the inputs, outputs, and internal transfers of energy and nutrients in north temperate hardwood forests, tropical rainforests, cloud forests, eucalypt woodlands, and baldcypress swamps. The Hubbard Brook ecosystem study is considered in detail. Includes a field trip to the Hubbard Brook experimental watershed in the White Mountains. Prerequisites: Biology 101 and 102. Mr. Herwitz/Offered every other year

216 Ecology/Lecture

Provides an overview of ecology as a scientific discipline. The primary emphasis is on efforts to explain and predict the distribution and abundance of organisms, how ecological communities are composed, and why they vary in time and space. Prerequisites: one or more courses from the organismal biology group and one college-level math course. Mr. Livdahl/ Offered every year

220 Population Biology/Lecture

Examines the properties that exist only at the population level, including schedules for birth and death, population growth patterns, spatial variation in abundance, genetic variation, and the factors that modify these features over time. Prerequisites: Biology 118 and 216, or permission of instructor. Mr. Livdahl/Offered every other year

221 Developmental Biology/ Lecture, Laboratory

Considers the fundamentals of development with primary emphasis on the vertebrate embryo. Prerequisites: Biology 101, 102, and permission of instructor. Mr. Larochelle/ Offered every year

223 Topics in Marine Biology/Lecture, Seminar

Provides an opportunity to delve in depth into selected topics in marine biology. Studies biological oceanography, marine ecology, marine coastal and open ocean communities, and relationships between humans and the sea. Limited to 15 students. Prerequisite: Biology 114. Mr. Johansen/Offered periodically

226 Research in Bioacoustics/ Laboratory, Discussion

See Psychology 226. Prerequisites: Biology 101 and 102. Ms. Wiser/Offered every year

227 Somatic Cell Genetics/Seminar

An advanced topics in genetics seminar with emphasis on genetic studies using eukaryotic cells in culture. Topics include somatic cell hybridization, gene transfer, and gene therapy at the cellular level. Students review and discuss some of the recent and past primary literature in these areas. Prerequisites: Genetics and Cell Biology or Microbiology. Mr. Lyerla/ Offered periodically

228 Molecular Genetics/Lecture, Seminar

Explores recent discoveries in the molecular genetics of prokaryotes and eukaryotes, with emphasis on new findings from recombinant

DNA technology and DNA sequencing. Topics include: protein synthesis, RNA transcription, gene regulation, repetitive DNA, gene cloning, split genes, gene families, transposable elements, oncogenes, and antibody gene rearrangement. Intended primarily for seniors and graduate students. Prerequisite: Biology 118 or 272, or permission of instructor. Mr. Thurlow/Offered every other year

229 Cell Culture Techniques/Lecture, Laboratory

An introduction to the methods used for propagation and experimental investigations of cells derived from multicellular organisms. Topics to be covered include husbandry of established cell lines, preparation of media, cell selection methods, cloning, and production of cell lines. Prerequisites: Biology 109, or permission of instructor. Mr. Lyerla/Offered every year

231 Recombinant DNA/Lecture, Laboratory

A laboratory-oriented course designed to introduce recombinant DNA methodology. Students undertake a semester-long project, which will vary each time the course is offered. A typical project might involve construction of a genomic library, isolation of specific clones from the library and characterization of these clones. Methods usually include DNA purification, Southern blot hybridization, restriction enyme mapping, bacterial transformation, polymerase chain reaction (PCR) and DNA sequencing. Prerequisite: Biology 118, or permission of instructor. Mr. Thackeray/Offered every year

234 Signal Transduction/Lecture

An advanced course exploring the various molecular and biochemical pathways through which cells communicate with themselves and the extracellular environment. Topics include protein phosphorylation, G-proteins, phospholipid metabolism, the action of oncogenes, and several ionic signalling pathways. Both lectures and student presentations of papers culled from current literature. Prerequisite: Biology 137 or 271, or permission of instructor. Mr. Larochelle and Mr. Thackeray/Offered every other year.

240 Human Physiology/Lecture, Discussion, Laboratory

Introduces the principles underlying physiological function. Lectures cover the subcellular, cellular, and organ levels of organization and place a primary emphasis on the integrative processes whereby all of the diverse organs and systems contribute to the performance of the complete individual. Discussions focus on readings about current issues in health and disease and how those issues relate to basic physiological processes. Prerequisites: Biology 137 or 271. Enrollment is normally restricted to Juniors, Seniors and Graduate Students. Ms. Kennedy/Offered every year

241 Risk Assessment in Environmental Toxicology/Lecture

See ES&P 241. Ms. Brown/Offered every other year

242 Animal Behavior/Lecture, Laboratory

Examines the causes and evolution of the behavior of animals. The largest part of this course will focus on the adaptive value and evolution of behaivoral patterns, but a general overview of behavioral development and causation will be provided to offer the necessary background for interpretation of the ultimate causes of behavior. Prerequisites: Biology 105 or 220 and permission of instructor. Ms. Foster/Offered even years

243 Seminar in Evolution

Discussion of a topic in evolution selected by interested students the previous fall. Readings will be from original literature. The format will be a combination of lecture and discussion. Prerequisites: Biology 105 and 118 or 220. Permission of instructor required. Ms. Foster/Offered odd years

246 Cancer: Science and Society/Seminar

See ES&P 246. Ms. Brown/Offered every other year

252 Seminar in Mycology

A detailed, but broad, treatment of fungi with discussion of the major groups of fungi. Topics include classification genetics, nutrition, biochemistry, molecular biology, secondary products, symbiosis, and ecology of fungi. Prerequisite: permission of instructor. Staff/Offered periodically

271 BIOCHEMISTRY I/LECTURE, LABORATORY

272 BIOCHEMISTRY II/LECTURE

This two-semester course provides a comprehensive and up-to-date survey of the field of biochemistry. The first semester covers cell metabolism and protein structure and function; the second semester deals with nucleic acid and protein metabolism and other topics. A laboratory component for the first semester acquaints students with methods and instrumentation used in biochemical research. Prerequisites: Biology 101, 102, and Chemistry 132. Mr. Nelson, Mr. Thurlow/ Offered every year

277 BIOCHEMISTRY OF DISEASE/ LECTURE, DISCUSSION

Considers biochemical systems that are perturbed in metabolic regulatory processes as in cardiovascular disease, hormonal imbalance (diabetes), and genetic defects (Tay-Sachs disease). The effects of environmental influences represented by drug and nutrient components are also addressed. Prerequisites: Biology 101 and 102, and Chemistry 132 or permission of instructor. Mr. Brink/Offered every other year

280 BIOSTATISTICS AND COMPUTER APPLICATIONS/LECTURE

Provides a background in the basic methods of data analysis for biologists, applications of mathematics to the description of biological phenomena, and the generation of testable hypotheses from models of biological processes. Prerequisites: one or more biology courses beyond Biology 101 and 102. Mr. Livdahl/ Offered every year

281 ANIMAL SOCIAL LIFE/SEMINAR

See Psychology 281. Prerequisite: permission of instructor. Mr. Thompson/Offered periodically

299 SEC. 0 DIRECTED RESEARCH/LABORATORY

An advanced independent study under the direction of a department member. Prerequisite: permission of instructor. Staff/Offered every year

299 SEC. 1 DIRECTED READINGS/DISCUSSION

Advanced readings under the direction of a department member. Prerequisite: permission of instructor. Staff/Offered every year

299 SEC. 8 HONORS IN BIOLOGY

Readings and research for students in the honors program. Pass/No record only. Staff/Offered every year

300 READINGS AND RESEARCH IN BIOLOGY

Offered for variable credit. Staff/Offered every year

311 GRADUATE RESEARCH SYMPOSIUM

Graduate students organize and present a public symposium composed of individual research presentations. This course may be repeated for credit. Mr. Livdahl/Offered every year

352 GRADUATE SEMINAR IN MYCOLOGY

A detailed but broad treatment of fungi with discussion of the major groups of fungi. Topics covered include: classification, genetics, nutrition, biochemistry, molecular biology, secondary products, symbiosis, and ecology of fungi. Prerequisite: permission of instructor. Staff/Offered periodically

353 GRADUATE SEMINAR IN MOLECULAR BACTERIOLOGY/SEMINAR

Recent papers on the molecular biology of bacteria are discussed, with occasional digressions into eukaryotes. The emphasis is on the molecular mechanisms of life, especially gene expression and regulation. Students also report on their own research results. Primarily for graduate students doing research in this area; may be repeated for credit. Prerequisite: permission of instructor. Staff/Offered periodically

397 MASTER'S THESIS

Offered for variable credit. Staff/Offered every year

398 DOCTORAL DISSERTATION

Offered for variable credit. Staff/Offered every year

THE GUSTAF H. CARLSON SCHOOL OF CHEMISTRY

Department Faculty

Donald J. Nelson, Ph.D., *chair: protein chemistry, bioinorganic*
Daeg S. Brenner, Ph.D.: *nuclear*
Rafael Brüschweiler, Ph.D.: *biophysical*
Karen L. Erickson, Ph.D.: *organic, natural products*
Frederick T. Greenaway, Ph.D.: *bioinorganic, enzymology*
Alan A. Jones, Ph.D.: *polymer, physical*
David L. Thurlow, Ph.D.: *molecular biology*
Mark M. Turnbull, Ph.D.: *organometallic, magnetochemistry*
Wen-Yang Wen, Ph.D.: *physical, gas-polymer interactions*

Research Faculty

Paul T. Inglefield, Ph.D.

Adjunct Faculty

Halina S. Brown, Ph.D.
Christopher P. Landee, Ph.D.
Timothy A. Lyerla, Ph.D.

Affiliate Faculty

David Kupfer, Ph.D.
George E. Wright, Ph.D.
David Ludlum, M.D., Ph.D.
William Royer, Ph.D.

Emeritus

Harry C. Allen Jr., Ph.D.
Edward N. Trachtenberg, Ph.D.

Undergraduate Program

The Chemistry Department offers an undergraduate program with the following goals in mind:

1. To provide a variety of course offerings that are consistent with the accreditation requirements of the American Chemical Society;
2. To offer a program that will prepare students for graduate work in chemistry and related fields;
3. To provide a strong scientific background for students planning careers in health-related professions;
4. To encourage students not majoring in science to obtain an overview of the impact of science on society.

The requirements for the chemistry major are two courses in calculus (Math 120 and 121, or 124 and 125), two courses in physics (Physics 110, and 111 or preferably 121), and 11 courses in chemistry and related fields. These courses must include:

Introductory Chemistry I 101
Introductory Chemistry II 102
Organic Chemistry I 131
Organic Chemistry II 132
Environmental Chemistry 142 or
Bioanalytical Chemistry 144
Instrumental Analysis 246
Inorganic Chemistry 250
Physical Chemistry I 260
Physical Chemistry II 262 or
Biophysical Chemistry 264

The remaining two-course requirement is normally satisfied by advanced chemistry courses, one of which may be Chemistry 299, sec. 2, Directed Research, or Chemistry 299, sec. 8, Honors. On rare occasions, with permission from the department, the student may substitute an advanced-level course in biochemistry, computer science, mathematics, physics, or biology.

Students planning graduate study in chemistry are strongly urged to take Physics 121 rather than Physics 111. In addition to the stated requirements, it is recommended that students take Chemistry 360, 231, and/or advanced mathematics, physics, and biochemistry courses, depending on the area of interest. Computer science courses also are recommended. All chemistry majors are encouraged to undertake independent research projects either as a candidate for honors (Chemistry 299, sec. 8) or in a directed research course (Chemistry 299, sec. 2) and may do so after completing Chemistry 102.

A student may elect as his/her first course in chemistry: Chemistry 10, 70, 101, 102, or 131. Science majors normally begin with Chemistry 101. The decision to start with Chemistry 102 or 131 (accelerating options) must be made in consultation with the department chair and may require taking a placement examination offered at the beginning of the academic year.

Students who fulfill the normal requirements will have their degrees accredited by the American Chemical Society. The department publishes an undergraduate handbook, Chemistry at Clark, which provides additional information. Copies are available at the department office.

Honors Program

An honors degree program is offered for highly qualified majors. Students who want to enter this program must apply in writing to the department chair prior to the beginning of the senior year. Participants are required to engage in an independent research project, participate in the department seminar program, and pass a set of comprehensive examinations. Further information about the program can be obtained from the department chair or the undergraduate handbook.

Minor in Chemistry

The requirements for a minor in Chemistry are:

CHEM 101 and 102 Introductory Chemistry
CHEM 131 and 132 Organic Chemistry

Plus two advanced courses in Chemistry or Biochemistry, neither of which may be used to satisfy a student's major requirements.

Five Year BA/MA Program

The department offers a M.A. degree in Chemistry (focusing on Biochemistry, Organic Chemistry, Environmental Chemistry, Physical Chemistry, Inorganic Chemistry, or Analytical Chemistry) to undergraduate chemistry or biochemistry majors who complete an additional four courses and submit an acceptable thesis based on original research. Details of the program are available from the department office.

Graduate Program

The department offers programs leading to the degrees of master of arts and doctor of philosophy with specialization in various fields of chemistry. Emphasis is placed on tailoring programs to fit the specific needs and desires of the graduate student. To facilitate this goal, a committee of interested faculty works with each student to advise and review his/her progress in research work, and together with the student, defines the formal coursework requirements. Up to one year's equivalent of teaching apprenticeship will be required of all candidates for advanced degrees. In addition to formal coursework, all students must pass qualifying examinations and submit and defend a research thesis.

Ph.D. candidates must pass preliminary examinations and meet the department language requirement as well. For further details, students should consult the appropriate departmental publications.

Graduate scholarships, teaching assistantships, and research fellowships are available.

Courses

010 Topics in Contemporary Chemistry/Lecture, Laboratory

This relatively nonmathematical course is designed for students majoring in social science or the humanities and is intended to develop a qualitative feeling about chemistry as it relates to the modern world. Approximately half the course is concerned with the development of modern chemical concepts; the remainder deals with current societal problems such as nuclear weapons and reactors, air and water quality, drugs, food additives, polymers, poisons, and others. In-class and final exams.
Staff/Offered every year

070 Preserving Genomes/Lecture, Laboratory/First-year Seminar

This laboratory-oriented course is offered as a first-year seminar. DNA will be isolated from endangered, rare, or exotic organisms selected by the student. The DNA will be cut into fragments and "cloned" using techniques involving recombinant DNA. As a result, the genes from the organism will be preserved as a library of fragments of DNA that are maintained in a population of bacteria. The "genomic library" will be submitted to a national repository, thereby preserving the genes of the endangered species. No prerequisites; students are invited to share in the excitement of preserving genes that might otherwise be lost forever. Laboratory reports, in-class and final exams. Mr. Thurlow/Offered every other year

101 INTRODUCTORY CHEMISTRY I/ LECTURE, LABORATORY

Designed to meet the needs of science majors and the pre-med program as well as those seeking a rigorous introduction to chemistry as part of their liberal arts education. Introduces fundamental chemical concepts and applies them to a discussion of structure, bonding, and reactivity of molecules. Knowledge of high school algebra is necessary; high school chemistry and physics, although helpful, are not required. The laboratory teaches techniques of chemical experimentation and methods of chemical analysis. In-class and final exams, laboratory reports, and quizzes. Staff/Offered every semester

102 INTRODUCTORY CHEMISTRY II/ LECTURE, LABORATORY

Continues Chemistry 101 with a discussion of thermodynamics, equilibrium theory, kinetics, electrochemistry, and the application of such theories to studies of structure and reactivity of molecules. The laboratory studies experimental techniques related to the lecture material. Prerequisite: Chemistry 101 or advanced placement. In-class and final exams, laboratory reports, and quizzes. Staff/Offered every semester

131 ORGANIC CHEMISTRY I/LECTURE, LABORATORY

Discusses the chemistry of carbon and its compounds. The structures and reactions of related classes of organic molecules are systematically studied with emphasis on reaction mechanisms and structural factors that affect reactivity. The laboratory concentrates on the preparation and physical, spectral, and chemical properties of these classes of compounds. Prerequisite: Chemistry 102 or advanced placement. In-class and final exams, laboratory reports. Staff/Offered every semester

132 ORGANIC CHEMISTRY II/LECTURE, LABORATORY

Continues Chemistry 131.

142 ENVIRONMENTAL CHEMISTRY/LECTURE, LABORATORY

Focuses on chemistry related to environmental problems, with emphasis on aquatic chemistry and aquatic and air pollution. Equilibrium theory is developed as a model for aquatic chemistry, and chemical analyses of local aquatic systems are conducted in the laboratory according to Environmental Protection Agency procedures. Prerequisite: Chemistry 102. In-class and final exams, laboratory reports. Mr. Nelson/Offered every year

144 BIOANALYTICAL CHEMISTRY/LECTURE, LABORATORY

This laboratory-oriented course presents both theoretical and practical aspects of quantitative analysis in biological systems. Topics include: equilibrium theory, chromatography, electrophoresis, immunochemistry, ultracentrifugation, absorption and fluorescence, NMR, enzyme analyses, and radioactivity counting procedures. Prerequisite: Chemistry 132. In-class and final exams, laboratory reports. Mr. Nelson/Offered every other year

231 ADVANCED ORGANIC CHEMISTRY/LECTURE

Provides a framework for students who wish to pursue an interest in organic chemistry beyond the level covered in Chemistry 131 and 132 by bridging the gap between material in standard elementary organic texts and the original literature. Advanced topics selected from structure, synthesis, and reaction mechanisms may include stereochemistry and asymmetric synthesis; ionic, free radical, carbenoid, and concentrated reaction mechanisms; structure determination by modern spectroscopic and degradative methods. Prerequisite: Chemistry 132. Ms. Erickson/Offered every year

235 Natural Products/Lecture

The structure, synthesis, biosynthesis and chemistry of selected secondary metabolites including steroids, terpenoids, alkaloids, and actogenins of both terrestrial and marine origin are discussed. Biogenetic theory is used extensively to emphasize the simplicity within the complexity of these natural products. Prerequisite: Chemistry 132. Ms. Erickson/ Offered every other year

236 Organometallic Chemistry/Lecture

Covers material related to compounds containing one or more covalent metal-carbon bonds. The material progresses from the traditional organometallics such as Grignards and cuprates through the transition metal and main group complexes. Emphasis is placed on the properties of organometallic compounds and mechanisms of their formation and subsequent reactions. Because of the recent development of the field, use of the primary literature is stressed. A comparison of traditional organic and inorganic chemistry is developed through this intermediate field. Prerequisites: Chemistry 132, 250, or permission of instructor. Mr. Turnbull/Offered every other year

242 Nuclear Science/Lecture, Laboratory

Covers the fundamentals of nuclear chemistry and physics: production, isolation, identification, structure, and measurement of radioactive atoms. Prerequisite: permission of instructor. Mr. Brenner/Offered periodically

246 Instrumental Analysis/Lecture, Laboratory

Concentrates on instrumental techniques of analytical chemistry from both theoretical and practical points of view. Topics include electrochemistry, various types of spectroscopic analysis, chromatography, and electrophoresis. In the laboratory, these techniques are used in the analysis of chemical samples. Prerequisite: Chemistry 142 or 144. In-class and final exams, laboratory reports. Staff/Offered every year

250 Inorganic Chemistry/Lecture, Laboratory

Deals with theories of structure and bonding and their utility in explaining the chemistry of inorganic substances. Topics include: molecula orbital, valence bond, and crystal field theorie of bonding and examples of the use of theories in explaining the structure and reactivities of inorganic molecules; acid base theory; spectroscopic methods; and kinetics. Emphasis is placed on the interpretation of structure and reactivity in terms of basic molecular and atomic parameters. Prerequisite: Chemistry 142 or 144. Prerequisite or corequisite: Chemistry 132. In-class and final exams, laboratory reports. Mr. Turnbull/Offered every year

252 Bioinorganic Chemistry/Lecture

Discusses the chemistry of metals in biological systems and models of these systems. There is a lengthy introduction to general principles and theories of inorganic chemistry and of metal ion and drug transport in biological systems. This is followed by an introduction to physical techniques used in studying metalloproteins. The major part of the course is a survey of the application of these principles and methods by way of a survey of metallobiological systems. Prerequisite: permission of instructor. Mr. Greenaway/Offered periodically

260 Physical Chemistry/Lecture, Laboratory

Covers the principles of physical chemistry as applied to gases, liquids, solids, and solutions. Much of the course is an introduction to the topic of chemical thermodynamics. The laboratory includes experiments in physical chemistry, the development of techniques of measurement, and technical report writing. Prerequisites: Mathematics 120 and Chemistry 102. Prerequisite or corequisite: Chemistry 132. In-class and final exams, laboratory reports. Mr. Wen/Offered every year

262 Physical Chemistry II/Lecture, Laboratory

The topics covered in this continued discussion of physical chemistry are solutions of the Schrodinger equation for simple systems, atomic and molecular spectroscopy, magnetic resonance, solid state and X-ray diffraction, statistical thermodynamics, and chemical kinetics. Prerequisite: Chemistry 260. Mr. Wen/Offered every year

264 BIOPHYSICAL CHEMISTRY/LECTURE, LABORATORY

See Biochemistry 264. Mr. Nelson/Offered every other year

265 ELECTRON PARAMAGNETIC RESONANCE SPECTROSCOPY/LECTURE

Introduces the theory and application of EPR as a probe of structure and reactivity. Theoretical concepts are discussed in a manner that does not require a knowledge of quantum mechanics, although a basic knowledge of chemistry is required. The course also is designed to be suitable for biology and physics majors. Prerequisite: permission of instructor. Mr. Greenaway/ Offered periodically

266 BIOMOLECULAR NMR/LECTURE

Covers the modern use of NMR for the study of structure and dynamic properties of biological molecules in solution. The course begins with the standard two-dimensional techniques (NOESY, COSY, TOCSY) for assignment and determination of conformation. Additional topics include three- and four-dimensional techniques, simplification of proton spectra using hetero-nuclear filtering, solvent orientation about proteins, dynamics and flexibility using relaxation rates, effect of environment on conformation, and the binding of small molecules to large proteins. A basic knowledge of NMR (e.g., one-dimensional spectra, coupling constants) is assumed. Staff/Offered periodically

271 BIOCHEMISTRY I/LECTURE, LABORATORY

272 BIOCHEMISTRY II/LECTURE

See Biochemistry 271 and 272. Mr. Brink, Mr. Nelson, Mr. Thurlow/Offered every year

275 PROTEIN CHEMISTRY/LECTURE

See Biochemistry 275. Mr. Nelson/Offered every other year

276 STRUCTURE AND FUNCTION OF NUCLEIC ACIDS/LECTURE

Discusses principles of nucleic acid structure including: types of helices, primary structure, secondary structure, and supercoiling. In the second half of the course, students discuss papers relating the principles of structure to a particular function such as storage, expression of information, catalysis, and evolution of the genetic code. Prerequisite: Chemistry 272. Mr. Thurlow/Offered every other year

280 POLYMER SCIENCE/LECTURE

The physical chemistry of synthetic polymers is presented, including discussion of kinetic mechanisms of polymerization, molecular weight distributions, unperturbed dimensions, structure and conformation, viscosity, and dynamic properties. Specific experimental methods useful in polymer chemistry such as osmotic pressure, light scattering, gel permeation chromatography, viscoelastic response, nuclear magnetic resonance, and dielectric response also are reviewed. Prerequisite: Chemistry 262 or 264. Mr. Jones/Offered every other year

289 RESEARCH METHODS/LECTURE, LABORATORY

Deals with the application of analytical tools widely used in the laboratory. Topics include NMR, EPR, IR, Raman, UV-visible, mass, and fluorescence spectroscopy, chromatography, electrophoresis, electrochemistry, and other techniques. Emphasizes practical knowledge for data interpretation and instrument operation. Quarter-credit courses lasting 4-5 weeks are offered periodically. Prerequisite: Chemistry 262 or 264, or permission. Staff/Different topics offered every semester

299 SEC. 2 DIRECTED RESEARCH/LABORATORY, DISCUSSION

Individual investigations that involve laboratory and literature research. Offered for variable credit. Prerequisite: permission of instructor. Staff/Offered every semester

299 SEC. 8 HONORS COURSE/LABORATORY, DISCUSSION

Primarily for majors seeking departmental honors in chemistry. Involves a laboratory research project and participation in department seminars. Offered for variable credit. Prerequisite: Permission of department chair. Staff/Offered every semester

322 THERMODYNAMICS/LECTURE

Discusses applications of the three laws of thermodynamics to chemical systems. Mr. Wen/ Offered periodically

323 STATISTICAL MECHANICS/LECTURE

Statistical mechanics is treated as a connecting bridge between molecular properties and thermodynamics. In addition, theories of phase transitions, classical fluids, and non-equilibrium systems are presented and discussed. Mr. Wen/Offered every other year

333 SYNTHETIC ORGANIC CHEMISTRY/LECTURE

The synthesis of organic compounds is discussed. Topics include the scope and limitations of general methods, mechanistic aspects, and stereochemistry. Special emphasis is on the total synthesis of complex molecules from design of methods to execution. Three lectures per week. Prerequisite: Chemistry 231 or permission. Mr. Turnbull/Offered periodically

350 SEMINAR

Consists of reports on research and discussions of recently published work. Guest Lecturers, Staff, Graduate Students/Not offered for credit

360 QUANTUM CHEMISTRY/LECTURE

An introduction to quantum mechanics. Covers elementary quantum-mechanical treatments of the structure of atoms and molecules. Prerequisite: Chemistry 262 or 264. Mr. Brenner/Offered every other year

361 MAGNETIC RESONANCE THEORY/LECTURE

The theory of static and time-dependent interactions involved in magnetic resonance spectroscopy is presented. Energy states are defined on the basis of the time-independent Hamiltonian and reflect symmetry. The time-dependent terms in the Hamiltonian are used to develop descriptions for line shape collapse and relaxation. Mr. Jones/Offered every other year

380 RESEARCH CONFERENCE/SEMINAR

Consists of informal reports of research work being done in the laboratory. Staff, Graduate Students/Offered every semester

399 GRADUATE SPECIAL TOPICS

Offered for variable credit. Staff/Offered every semester

COMMUNICATION AND CULTURE

Participating Faculty

Fern Johnson, Ph.D., *program director, English: sociolinguistics, feminist linguistics, cultural foundations of communication, language in media*

Marcia Butzel, Ph.D., *Visual and Performing Arts: film criticism, theory and history; gender and film, comparative arts*

Parminder Bhachu, Ph.D., *Henry R. Luce Professor of Cultural Identities and Global Processes: urban anthropology, emergent cultural forms, cultural production, transnational diaspora cultures, immigration and migration identities*

Nancy Budwig, Ph.D., *Psychology: language development, discursive psychology, socialization*

Linda Dusman, D.M.A., *Visual and Performing Arts: composer, theories of performance and music reception*

Eric Gordy, Ph.D., *Sociology: sociological theory, sociology of culture, media and music, political and historical sociology, Balkan societies*

Bradley Klein, Ph.D., *Government and International Relations: political theory, international relations, U.S. foreign policy, politics of the media*

Matthew Malsky, Ph.D., *Visual and Performing Arts: composer, electronic music and multimedia*

Sarah Michaels, Ph.D., *Education: relationships among language, discourse, culture and schooling; discourse analysis relating to classroom life and learning; teacher research*

Rhys Townsend, Ph.D., *Visual and Performing Arts: ancient art and archaeology, material culture*

Jaan Valsiner, Ph.D., *Psychology: cultural psychology and history of ideas*

Virginia Vaughan, Ph.D., *English: Shakespeare, Renaissance drama, Renaissance poetry and prose*

Program

The Communication and Culture major focuses on interdisciplinary cultural analysis of communication in its many forms and on the application of this analysis to the production of culture through various modes of expression. Students learn about the ways in which culture is reproduced, transformed, and communicated through the discourses of language, visual media, and nonverbal communication. In COMM courses, faculty and students probe the crucial but subtle messages embedded in visual and graphic images, everyday discourse, literary works, music, historical writing, material productions, and other symbolic systems. The COMM major integrates categories of inquiry often separated in traditional communication studies programs and invites the student to reflect on the relationships between cultural systems and professional practice. In particular, the major requires students to experience theory and practice from the perspectives of both the humanities and the social sciences.

COMM students can begin their study as early as the first year with a topic-based first-year seminar or an introductory course. Ideally, students take COMM 101 in their first or second year. The major is structured through a foundation of three required core courses (COMM 101, COMM 150, COMM 151). These are expanded upon in elective courses organized into two clusters: "Discourse and Cultural Studies," and "Visual Media and Nonverbal Communication." Integrative seminars incorporating several perspectives on communication analysis provide a more advanced and intensive orientation to the cultural analysis of communication. At the intermediate level (usually the junior year), students participate in an approved internship focusing on some aspect of communication or they engage in an original project or directed study. The major courses culminate in a capstone seminar or approved project. Throughout the major, the emphasis is on combining knowledge of communication theories, concepts, and methodology with a critical understanding of the cultural dimensions of all communicative practice.

Students interested in communication fields who want a strong liberal arts background, as well as some hands-on experiences in a variety of media, will be especially attracted to this program. The COMM major is also well adapted for students pursuing elementary education certification.

Requirements for the Major (11 units minimum)

I. Foundation Courses

COMM 101: Communication and Culture — 1 unit

II. Anchor Seminars (2 courses)

COMM 150: Anchor Seminar in Discourse and Cultural Studies — 1 unit

COMM 151: Anchor Seminar in Visual Media and Nonverbal Communication — 1 unit

III. Cluster Courses (minimum of 5) — 5 units

At least 2 courses in each cluster: "Discourse and Cultural Studies," "Visual Media and Nonverbal Communication"

- a minimum of 2 and a maximum of 4 cluster courses are to be practicum-based
- a minimum of 3 of the cluster courses must be at the 200-level

IV. Integrative Seminar (200-level) — 1 unit

courses fulfilling this requirement are designated each semester

Internship or Project — 1-2 units

VI. Capstone — 1-2 units

Students must earn a grade of C or better in all courses contributing to the major program of study.

For more information about the COMM major, call 793-7180.

Requirements for a Minor

The minor in Communication and Culture is designed to provide concentrated study in one or the other of the two program clusters: Discourse and Cultural Studies or Visual Media and Nonverbal Communication. The minor requires a minimum of six courses as follows:

1. COMM 101: Communication and Culture: One anchor seminar, either:
2. COMM 150/Anchor Seminar: Discourse & Cultural Studies or COMM 151/Anchor Seminar: Visual Media & Nonverbal Communication
3. Four additional courses selected from the cluster of courses corresponding to the anchor seminar as listed in the catalog; no more than two may be designated "practicum-based" courses; and at least two must be at the 200 level.

Courses

I. Core Course

COMM 101: COMMUNICATION AND CULTURE
Examines the ways in which communication creates and represents social orders and cultural identities. Emphasis is on critical analysis of communication in contemporary society. Subjects include culture-based metaphor, nonverbal communication, advertising, print media, and television. Ms. Johnson/offered every year

II. First-year Seminars (optional)

020: TRANSFORMING SCHOOLING: CULTURE, COMMUNITY, EDUCATION, AND SOCIETY
A field-based year-long exploration of urban schooling, community revitalization, and the politics and promises of education reform. Designed for students interested in community activism and social justice, seminar participants will serve as year-long "mentors" at the University Park Campus School. UPCS is a break-the-mold public school on the Clark campus, serving predominantly minority and poor students from the neighborhood surrounding Clark. All participants in the seminar will work closely with students and teachers in the school and afterschool "homework center." At the same time, seminar participants will read widely in the fields of education and society, cultural studies, and the social organization of learning. Students will write about their experiences (as part of a book being written about the new school) and collaborate with a Clark film professor and advanced film students at Clark documenting the school and the Main South community. Fulfills the verbal expression requirement. Ms. Michaels, Ms. Rodrigues/Offered every year

115: MUSIC AS DISCOURSE
Introduces contemporary musical discourse from a variety of theoretical perspectives through the study of "classical music," blues, opera, disco, country and western, rap, video, rock and heavy metal. No formal training in music or music history is necessary. Mr. Malsky/Offered every year

121: SHAKESPEARE RECYCLED
Explores how Shakespeare's plays have been reproduced and adapted throughout the world in plays, novels, film, and television. Students also design their own projects, exploring such topics as Shakespeare in advertising, Shakespearean cartoons and comic books, Shakespeare in musicals, and Shakespeare in contemporary film and television. Ms. Vaughan/Offered every year

194: PSYCHOLOGY, COMMUNICATION, AND THE SELF
Explores the foundations of such concepts as the mind, emotions and feelings, values and beliefs, language and languages, manners, and other cultural conventions. These concepts are connected with different definitions of the self and the course explores how these concepts are expressed in different ways. Mr. Bamberg/ Offered every year

III. Anchor Seminars and Cluster Courses

Including the two required anchor seminars, students take seven cluster courses selected from a wide variety of cross-listed courses. Courses marked with an asterisk (*) have been designated as practicum-based.

CLUSTER 1: DISCOURSE AND CULTURAL STUDIES

Focuses on the many ways in which discourse constructs culture. Analyzes language as a system of communication, considers the cultural dimensions of communication, and also provides practical experience in written and spoken discourse for a variety of audiences.

Required

150: ANCHOR SEMINAR: DISCOURSE AND CULTURAL STUDIES

The anchor seminar for the Discourse and Cultural Studies Cluster studies the nature of human communication—both in language and other sign systems (e.g., cultural artifacts, media, and social interactions)—within and across diverse cultures and social institutions. It focuses on tools for analyzing communication in context with reference to its psychological, social, cultural, and political implications. Ms. Michaels, Staff/Offered every year

Electives

017: CULTURE, PLACE AND THE ENVIRONMENT

See Geography 017. Mr. Bowden/Offered every year

105: NEWS WRITING WORKSHOP*

See English 105. Staff/Offered every year

106: CREATIVE WRITING: FICTION*

See English 106. Ms. Braham/Offered every year

107: CREATIVE WRITING: POETRY*

See English 107. Ms. Braham/Offered every year

130: THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

135: GENDER, SPACE, AND ENVIRONMENT

See Geography 136. Ms. Rocheleau/Offered every year

136,137: STUDIES IN FRENCH CULTURE

See French 136. Mr. Spingler, Ms. Kaufmann/Offered every year

142: CITIES AND CULTURE: THE AMERICAN CITY

See Geography 142. Mr. Bowden/Offered every year

160: LANGUAGE, EMOTION, THOUGHT, AND CULTURE

See Psychology 160. Mr. Bamberg, Ms. Budwig/Offered periodically

161: CULTURAL IDENTITIES AND GLOBAL PROCESSES

See Cultural Identities and Global Processes 161. Ms. Bhachu/Offered every year

180: CULTURAL PSYCHOLOGY

See Psychology 180. Mr. Valsiner

185: POLITICS OF THE MEDIA

See Government 185. Mr. Klein/Offered every year

189: DISCOURSE, SUBJECTIVITY AND SELF

See Psychology 189. Mr. Bamberg/Offered periodically

191: LANGUAGE DIVERSITY IN THE UNITED STATES

See English 191. Ms. Johnson/Offered every year

192: ETYMOLOGY

See English 192. Mr. Blinderman/Offered every year

193: LANGUAGE OF BIOLOGY

See English 193. Mr. Blinderman/Offered every year

195: CULTURE AND SPORT

See Geography 196. Mr. Bowden/Offered every other year

196: ORAL ADVOCACY*

See English 196. Ms. Johnson/Offered every other year

202: FEATURE WRITING I*

See English 202. Staff/Offered every year

203: FEATURE WRITING II*

See English 203. Staff/Offered every year

230: SOCIOLOGY OF CULTURE: MEANING,POLITICS AND DIFFERENCE

See Sociology 231. Mr. Gordy/offered every year

240: END OF AMERICA: LA

See Geography 240. Mr. Bowden/offered every other year

243: POLITICAL SOCIOLOGY

See Sociology 243. Mr. Gordy, Mr. Ross/Offered every year

247: THEORETICAL MODELS OF COMMUNICATION IN PSYCHOLOGY

See Psychology 247. Ms. Valsiner/Offered periodically

248: SIGNS/CROSSROADS: SEMIOTICS

See English 249. Ms. Gertz/Offered periodically

249: THE FRENCH-SPEAKING WORLD
See French 249. Ms. Kaufmann/Offered every other year

251: MEDIA AND SOCIETY
See Sociology 251. Mr. Gordy/Offered every year

252: LANGUAGE DEVELOPMENT
See Psychology 251. Mr. Bamberg, Ms. Budwig/ Offered every year

253: NARRATIVE DISCOURSE
See Psychology 253. Mr. Bamberg/Offered periodically

257: LANGUAGE AT ISSUE
See English 257. Ms. Johnson/Offered every other year

259: SOCIOLOGY OF ORGANIZATIONS
See Sociology 259. Ms. Ewick/Offered every year

262: COMMUNICATION: VERBAL AND NONVERBAL
See Psychology 262. Mr. Wiener/Offered periodically

268: COMMUNICATION DEVELOPMENT
See Psychology 268. Ms. Budwig/Offered periodically

275: CULTURE, CONSUMPTION AND CLASS IN LOCAL AND GLOBAL CONTEXTS
See CIGP 275. Ms. Bhachu/offered every other year

278: THE CREATION OF NATIONALISMS, NATIONALIST CULTURE, AND SYMBOLS
See Cultural Identities and Global Processes 278. Ms. Bhachu/Offered every year

294: GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY
See Cultural Identities and Global Processes 294. Ms. Bhachu/Offered periodically

295: GENDER IN LANGUAGE USE
See English 295. Ms. Johnson/Offered every year

CLUSTER 2: VISUAL MEDIA AND NONVERBAL COMMUNICATION

This cluster explores media that are not fundamentally language-based. Analyzes and explores media whose creation and meaning emphasizes sight or sound and mediated systems that engage combinations of the senses. Considers the cultural and social contexts in which visual media and nonverbal communication are created and interpreted.

Required

151: VISUAL MEDIA AND NONVERBAL COMMUNICATION
Examines means by which society creates and transmits cultural beliefs through forms of nonverbal communication. Studies how tangible artifacts, ranging from clocks to computers, reveal the ideas, assumptions, and values of the people who make them. Students will explore ways to make use of such artifacts responsibly and creatively in a media-driven society. Mr. Townsend, Staff/Offered every year

Electives

010: INTRODUCTION TO THE HISTORY OF ART I
See Art History 010. Staff/Offered every year

011: INTRODUCTION TO MUSIC
See Music 010. Staff/Offered every semester

012: MUSIC AS CULTURE
See Music 011. Staff/Offered every other year

100: VISUAL STUDIES: 2 D DESIGN AND COLOR*
See Studio Art 100. Staff/Offered every year

102: VISUAL STUDIES: DRAWING*
See Studio Art 102. Staff/Offered every year

103: TWENTIETH-CENTURY MUSIC
See Music 103. Ms. Dusman, Mr. Malsky/ Offered every year

108: INTRODUCTION TO SCREEN STUDIES
See Screen Studies 101. Mr. Benelli, Ms. Butzel/Offered every semester

112: CREATIVE ACTOR*
See Theatre Arts 112. Mr. Munro, Mr. DiIorio/ Offered every semester

117: FACTUAL FILM AND TELEVISION
See Screen Studies 123. Mr. Benelli/Offered every other year

118: HISTORY OF TELEVISION AND BROADCASTING
See Screen Studies 122. Mr. Benelli/Offered every other year

119: INTRODUCTION TO PHOTOGRAPHY*
See Studio Art 120. Mr. Rosenstock, Mr.DiRado/Offered every semester

120: HISTORY OF AMERICAN NARRATIVE FILM
See Screen Studies 120. Mr. Benelli/Offered every other year

122: SURVEY OF INTERNATIONAL FILM MOVEMENTS
See Screen Studies 121. Mr. Benelli/Offered every other year

123: INTERMEDIATE PHOTOGRAPHY*
See Studio Art 121. Mr. Rosenstock, Mr. DiRado/Offered every semester

124: MUSIC THEORY I: TONALITY I*
See Music 121. Ms. Dusman, Mr. Malsky/Offered every year

125: GRAPHIC DESIGN PROJECTS*
See Studio Art 125. Ms. Bodenweber/Offered every year

126: MUSIC THEORY II: TONALITY II*
See Music 122. Ms. Dusman, Mr. Malsky/Offered every year

140: MUSIC AND MULTIMEDIA
See Music 140. Mr. Malsky/Offered every year

163: HISTORY OF FRENCH CINEMA: BEFORE WORLD WAR II
See French 263. Ms. Butzel/Offered every other year

165: FRENCH PLAY PRODUCTION*
See French 165. Mr. Spingler/Offered every other year

167: INTRODUCTION TO VIDEO PRODUCTION*
See Studio Art 167. Mr. Simon/Offered every semester

171: VIDEO PRODUCTION PROJECTS*
See Studio Art 171. Mr. Simon/Offered every year

184: FILM AS NARRATION
See Screen Studies 184. Ms. Butzel/Offered every other year.

208: TYPOGRAPHY*
See Studio Art 208. Ms. Buie/Offered every year

212: THE ACTOR AS THINKER*
See Theatre Arts 212. Mr. Munro/Offered every semester

216: ARCHITECTURE AND DEMOCRACY
See Art History 216. Mr. Townsend/Offered every other year

219: ANCIENT ART
See Art History 219. Mr. Townsend/Offered periodically

250: PHOTOGRAPHY STUDIO*
See Studio Art 250. Staff/Offered every year

254: GRAPHIC DESIGN STUDIO*
See Studio Art 254. Ms. Buie/Offered every year

277: VIDEO PRODUCTION STUDIO*
See Studio Art 278. Mr. Simon/Offered every year

288: ART OF THE CITY: PARIS AND NEW YORK
See English 288. Mr. Conron, Mr. Spingler/Offered every other year

289: GENDER AND FILM
See Screen Studies 288. Ms. Butzel/Offered every other year

C. Ways of Knowing Courses: Education Options

Students completing the requirements for certification in Elementary Education take five "Ways of Knowing" courses. Other interested students may also take these courses. For students majoring in Communication and Culture, a maximum of two of these may be counted toward the cluster requirements. Although these courses include an integration of theory, concepts, and practice, they do not fulfill the practicum-based requirement for the major. The courses are listed below according to the cluster in which they may be applied.

282: WAYS OF KNOWING IN THE ARTS (CLUSTER 2)
See Education 282. Staff/Offered every year

283: WAYS OF KNOWING IN THE SOCIAL SCIENCES (CLUSTER 1)
See Education 283. Staff/Offered every year

284: WAYS OF KNOWING IN THE HUMANITIES (CLUSTER 1)

See Education 284. Staff/Offered every year

285: WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES (CLUSTER 1)

See Education 285. Staff/Offered every year

286: WAYS OF KNOWING IN MATHEMATICS (CLUSTER 1)

See Education 286. Staff/Offered every year

IV. Capstone Seminars and Honors Thesis

Students should consult program director and handbook for majors.

V. Internship, Special Project, or Directed Readings

299.9: INTERNSHIP

299.1: DIRECTED READINGS

299.5: SPECIAL PROJECT

Internships can be in Worcester or at other approved locations throughout the U.S. Students seeking certification in elementary education may fulfill their internship requirement through their teaching practicum in the Worcester area schools. Directed Readings and Special Projects are supervised by program faculty and are intended to provide depth in a subject area and opportunities for creativity.

COMPARATIVE LITERATURE

Participating Faculty

Kenneth Hughes, Ph.D., program director: *18th- to 20th-century European literature, literary theory*

María I. Acosta Cruz, Ph.D.: *Baroque literatures, postmodernist narrative*

Paul F. Burke Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology*

Carol C. D'Lugo, Ph.D.: *Spanish and Spanish-American narrative, literary theory*

Marvin A. D'Lugo, Ph.D.: *Hispanic literature and film, narrative theory*

William Ferguson, Ph.D.: *Spanish Golden Age literature, 20th-century Hispanic literature*

Everett Fox, Ph.D.: *Jewish ritual and folklore, Classical Jewish thought*

Hartmut Kaiser, Ph.D.: *German language and literature, German romanticism, the fairy tale, relations between music and literature*

Dorothy Kaufmann, Ph.D.: *French feminism, literature and existentialism, French and Francophone cultural studies, European novel*

Walter Schatzberg, Ph.D.: *age of Goethe, German expressionism in literature and the arts, German cinema, relations of literature and science*

Michael K. Spingler, Ph.D.: *French theater and film, comparative drama, translation*

Adjunct Faculty

Martyn J. Bowden, Ph.D.
Marcia Butzel, Ph.D.
John Conron, Ph.D.
SunHee Kim Gertz, Ph.D.
Bernard Kaplan, Ph.D.

Undergraduate Program

Comparative Literature is a wide-ranging, multicultural program of studies in poetry, prose, drama, film, and related arts. Housed in the Department of Foreign Languages and Literatures, the program is by nature interdisciplinary and has strong ties with several other departments in the University. In addition to the courses offered by the department in comparative literature and literatures in foreign languages, the student is encouraged to take courses in English, history, humanistic geography, philosophy, and visual and performing arts. One of the special aspects of the program is the emphasis on developing a practical and critical approach to texts. This may take the form of play production, seminars in translation of lyric poetry and drama, and supervised work in contemporary critical theory (i.e., relations between text and performance, spectator positioning, and reader response).

Requirements

1. Four courses beyond the intermediate level in one or more foreign languages. (An intermediate-level course in a second foreign language may be used in certain cases toward the fulfillment of the language course requirement.)

2. Four courses in comparative literature, at least two of which should have a strong theoretical component.
3. Five related courses, to be selected by the student in consultation with a faculty advisor.

Courses

112 THE FAIRY TALES OF THE BROTHERS GRIMM/LECTURE, DISCUSSION

See German 112. Conducted in English. Mr. Kaiser/Offered every other year

117 INTRODUCTION TO THE HEBREW BIBLE I: NARRATIVE AND LAW/LECTURE, DISCUSSION

See Jewish Studies 117. Mr. Fox/Offered every year

118 INTRODUCTION TO THE HEBREW BIBLE II: PROPHECY AND POETRY/LECTURE, DISCUSSION

See Jewish Studies 118. Mr. Fox/Offered every year

120 THE EPIC JOURNEY/LECTURE, DISCUSSION

A comparative and cross-cultural examination of the epic as a recurring literary form. Special attention is paid to the various forms and functions of the hero's journey. Defines and articulates the various types of epic voyage and relates their differences and similarities to the values of the societies which gave rise to them. Included in the term's reading are selections (in English translation) from Homer's *Odyssey*, Vergil's *Aeneid*, Apollonius's *Argonautica* and Apuleius's *Ass*. Mr. Burke/Offered every other year

121 SURVEY OF INTERNATIONAL FILM MOVEMENTS/LECTURE, DISCUSSION

See Screen Studies 121. Mr. Benelli/Offered every other year

123 THE MIDRASHIC TRADITION/LECTURE, DISCUSSION

See Jewish Studies 123. Mr. Fox/Offered every other year

130 THE NATIONAL IMAGINATION: TOPICS IN LITERATURES AND CULTURES/LECTURE, DISCUSSION

Core course required for all department majors. This team-taught course introduces the student to the various methodologies used in the humanities today. Course content varies according to instructors involved. Staff/Offered every year.

151 INTRODUCTION TO MEDIEVAL LITERATURE/LECTURE, DISCUSSION

See English 150. Ms. Gertz/Offered every year

155 STUDIES IN ITALIAN FILM: NEOREALISM/LECTURE, DISCUSSION

Explores the political, cultural, and aesthetic role of Neorealist cinema in Italy. The linkage of film, history, and nationality during the years 1942-1951 leads to broader questions concerning the relations between art and politics in fascist, Resistenza, and contemporary Italian culture. In addition to film texts and selections from the critical debate over Neorealism in film and cultural history, we consider both precursors and inheritors of Neorealist cinema. Ms. Butzel/Offered every other year

160 FRENCH CULTURE SEEN THROUGH FILM: JEAN RENOIR/LECTURE DISCUSSION

See French 160. Mr. Spingler/Offered periodically

168 MUSIC IN GERMAN LITERATURE AND THOUGHT/LECTURE, DISCUSSION

See German 168. Mr. Kaiser/Offered every other year

169 PSYCHOLOGY OF LOVE AND HATE IN LIFE AND LITERATURE/LECTURE DISCUSSION

See Psychology 256. Mr. Kaplan/Offered periodically

175 LITERATURE AND EXISTENTIALISM/SEMINAR

An introduction to major writers and themes of existentialism from Dostoyevsky, Kierkegaard, and Nietzsche to Sartre, Beauvoir, and Camus. Beginning with a study of the cultural origins of existentialism as a distinctively modern, European sensibility, we explore why and how existentialist thought has found expression with unique appropriateness as both philosophical literature and literary philosophy. Ms. Kaufmann/Offered periodically

181 THE LITERATURE OF MODERN SPAIN IN TRANSLATION/LECTURE DISCUSSION

Readings representing the major authors and trends in the literature of Spain in the 19th and 20th centuries. Emphasizes the realist novels of Galdós and Clarín in the 19th century; the philosophical novels of Unamuno and Pérez de Ayala, poetry and theater of

Lorca, and the post-modernist narratives of Goytisolo in the 20th century. Mr. D'Lugo/ Offered every other year

188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM, AND THE ARTS/LECTURE, DISCUSSION

See German 188. Mr. Schatzberg/Offered every other year

191 FRENCH VERSUS AMERICAN TELEVISION/LECTURE, DISCUSSION

Through the analysis of video programming from France and the U.S., this course gives students experience in understanding and theorizing different modes of cultural representation. Some of the principal questions asked: What kinds of critical procedures are useful in analyzing television? What constitutes a television text in different Western nations? How can we understand the relation of television programming to different cultural situations? Reading includes essays on television theory and analysis, and studies of French and American culture. Ms. Butzel/Offered every other year

197 THE FAUST THEME IN LITERATURE AND MUSIC/LECTURE, DISCUSSION

See German 197. Mr. Kaiser/Offered periodically

205 THE PLAY AND ITS STAGES/SEMINAR, WORKSHOP

A critical approach to the dramatic text based on historical and material conditions of performance. Considers the changing ways that meanings are made through styles and conventions of performance (including set, costume, mask, and vocal delivery), which are specific to historical and cultural moments. Playwrights considered may include Sophocles, Shakespeare, Racine, Molière, Chekhov, Ibsen, Brecht, Genet, and Beckett. Scene work. Mr. Spingler/Offered every other year

206 LANGUAGES OF THEATER/SEMINAR, DISCUSSION

A study of the way meanings are made in theater through structure and sign. Examines the function of non-verbal communication in theater, especially mask, gesture, movement, and sound. Plays may include works of Euripides, Shakespeare, Cocteau, Apollinaire, Jarry, Genet, and Pinter. Critical works read include Artaud's *The Theater and its Double*, Brook's *The Empty Space*, and Grotowski's *Towards a Poor Theater*. Scene work. Crosslisted with Theater Arts 206. May be taken as a companion course to Comparative Literature 205. Mr. Spingler/Offered periodically

210 POSTMODERNISM/SEMINAR

A comparative approach to postmodernism from the 1940s to the present. An overview of postmodernism and its theories as a wide-ranging cultural movement is followed by readings and discussions of postmodernist writers who have extended boundaries of genre, authorship, theory, and interpretation of literature. Authors include: Julian Barnes, Jorge Luis Borges, Italo Calvino, Julio Cortázar, Milan Kundera, Stanislaw Lem, Gabriel García Márquez, Salman Rushdie, Mario Vargas Llosa, Fay Weldon. Ms. Acosta Cruz/Offered every other year

215 20TH CENTURY FRENCH AND FRANCOPHONE WOMEN WRITERS/LECTURE, DISCUSSION

Explores the major works of French fiction and theory as they question and illuminate each other in the context of the contemporary French feminist controversy between theories of equality and theories of difference. Readings include Colette, Simone de Beauvoir, Helène Cixous, Marguerite Duras, Luce Irigaray, Monique Wittig, Julia Kristeva. Prerequisite: permission of the instructor. Ms. Kaufmann/ Offered every other year

220 THE RUSSIAN NOVEL IN THE 19TH CENTURY/LECTURE, DISCUSSION

See Russian 220. Mr. Hughes/Offered every other year

240 STUDIES IN MODERN NARRATIVE FORM/LECTURE, DISCUSSION

Investigates modifications of the traditional novel form in the 20th century, changes which have enabled the novel to maintain its position as the pre-eminent literary genre. Authors studied include: Joyce, Woolf, Beckett, Thomas Mann, Robbe-Grillet, D.M. Thomas, and Doctorow. Mr. Hughes/Offered every other year

246 STUDIES IN SPANISH CINEMA/ LECTURE, DISCUSSION

See Spanish 246. Conducted in English. Mr. D'Lugo/Offered every other year

247 STUDIES IN HISPANIC CINEMA/ LECTURE, DISCUSSION

See Spanish 249. Conducted in English. Mr. D'Lugo/Offered every other year

248 STUDIES IN LATIN AMERICAN CINEMA/ LECTURE, DISCUSSION

See Spanish 248. Mr. D'Lugo/Offered every other year

249 SIGNS & CROSSROADS/SEMINAR

See English 249. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE/SEMINAR

See English 250. Ms. Gertz/Offered every other year

251 SEMINAR IN LITERARY CRITICISM/SEMINAR

Seeks to develop critical sensibilities by concentrating on three major modes of literary criticism: textual, psychoanalytic, and Marxist. Discusses both original sources (Freud, Marx, and others) and a range of criticism based on their methods. In order to unify discussion and development, the seminar centers around a thorough critical appraisal of the works, life, and society of Franz Kafka. Primary material includes his short stories, his novel *The Trial*, *Letter to His Father*, and *Letters to Milena*. Mr. Hughes/Offered periodically

254 EAST MEETS WEST

See English 254. Ms. Gertz/Offered every other year

260 INTERPRETATIONS OF DREAMS/LECTURE, DISCUSSION

See Psychology 260. Mr. Kaplan/Offered periodically

276 SYMBOLISM IN EVERYDAY LIFE/SEMINAR

See Psychology 276. Mr. Kaplan/Offered periodically

277 THE CREATIVE PROCESS/SEMINAR

See Psychology 277. Mr. Kaplan/Offered periodically

278 MODERN POLITICAL LITERATURE: CLASS, RACE, GENDER, ETHNICITY/SEMINAR

See English 278. Mr. Sultan/Offered every year

280 LATIN AMERICAN LITERATURE IN TRANSLATION/LECTURE, DISCUSSION

See Spanish 280. Ms. Acosta Cruz, Ms. D'Lugo/Offered periodically

286 AMERICAN MODERNISMS/DISCUSSION

See English 286. Mr. Conron/Offered every year (Not offered 1998-1999)

287 MODERNIST SENSES OF PLACE/DISCUSSION

See English 287. Mr. Conron/Offered every year (Not offered 1998-1999)

288 ART OF THE CITY: PARIS AND NEW YORK/ DISCUSSION

A comparative structural and cultural analysis of two urban designs, Haussmann's Paris and Olmsted's New York, of the visual representation of the two cities, and of the literary interpretation of the cities. The cities will be considered as theaters in which cultural meanings are produced through spatial composition and performances in the set. Among the questions to be explored is the matter of cultural kinships and differences between France and the United States. Prerequisite: Permission of either instructor. Mr. Conron, Mr. Spingler/Offered every other year

293 STUDIES IN LANDSCAPE/SEMINAR

See English 293. Mr. Conron/Offered every other year

294 HISTORY OF THE ENGLISH LANGUAGE/ SEMINAR

See English 294. Ms. Gertz/Offered periodically

299 GENDER AND FILM/LECTURE, DISCUSSION

See Screen Studies 288. Ms. Butzel/Offered every other year

COMPUTER SCIENCE

Program Faculty

Arthur Chou, Ph.D.: *algorithms, complexity theory*
Harvey Gould, Ph.D.: *computer simulation*
Frederic Green, Ph.D.: *theory of computation, structural complexity, circuit complexity*
David Joyce, Ph.D.: *semantics of programming languages*

Undergraduate Major

The department offers a program in which computer science is viewed as an essential discipline within the general academic mission of Clark University. In keeping with Clark's liberal arts tradition, the program emphasizes concepts and principles, rather than engineering. The computer science major provides preparation for a variety of career paths, both inside and outside the academic community. The program includes two courses in computer programming, which serve as the general introductory courses for the discipline, and four intermediate courses, which serve as the core requirements for the major and expose the fundamental principles of computer science. Beyond this, a series of elective courses is offered, in which applications and advanced topics are explored. Further information, including expanded course descriptions, can be found on the department's World Wide Web server at <http://aleph0.clarku.edu/>.

Declaring a Major

The department has a system of advising to assist students with their course selections. A student must declare his/her major no later than the end of the second semester of the sophomore year. At the time a student declares a major, he/she should select an advisor from among the department faculty; the advisor will sign the "declaration of major" form available from the Office of Student Records. This advisor will help the student design the best program of courses to suit his/her goals. A department form also is completed at this time and kept on file at the department office.

Requirements for the Computer Science Major

To graduate as a computer science major a student must complete the following courses:

A. Two Introductory Courses:
  CSci 101 Programming I
  CSci 102 Programming II

B. Three Mathematics Courses:
  Math 114 Discrete Mathematics
  One year of calculus (Math 120-121 or Math 124-125)

C. Four Core Courses:
  CSci 140 Assembly Language and Computer Organization
  CSci 160 Data Structures and Algorithms
  CSci 170 Analysis of Programming Languages
  CSci 180 Automata Theory

D. Four courses in computer science at the 200 level, (not including internships or reading courses except with departmental approval)

Suggested Program Sequence

It is important to begin the computer science program early. An ideal program sequence begins with CSci 101, Programming I, in the fall of the first year, followed by CSci 102, Programming II, and Math 114 Discrete Mathematics, in the spring semester. The four core courses and calculus should be taken as soon as possible thereafter.

Discrete Mathematics, Math 114, which covers the concepts, principles, and methods of related mathematics, is required of all majors and should be taken as early as possible by students who may be interested in computer science. This course is essential for most computer science beyond the introductory level. All majors also are required to take two semesters of calculus. Discrete mathematics and calculus should be taken during the freshman year, if possible. If both cannot be taken during the freshman year, preference should be given to discrete mathematics. These requirements are meant to ensure that all students will have the appropriate mathematical tools in order to study computer science.

Honors Program

A major who maintains at least a 3.2 average (4.0 scale) in courses required for the major may apply for the department honors program. A student's application in writing must be directed to a prospective honors advisor or the chair of the department by the end of the student's junior year. Honors may be achieved in one of two ways: (1) a unified four-course sequence as a senior (some parts of which may consist of directed readings), followed by a comprehensive examination; (2) an honors project to be presented at an oral defense or at a department seminar. This project may be an independent or joint research thesis, or it may be a programming project. Supporting course work may be required. Students interested in pursuing the honors program should consult their department advisor. The student registers for CSci or Math 299, Sec. 8 for course credit for an honors thesis. Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors, or highest honors.

The Computer Science Minor

A minor in computer science consists of six courses: CSci 101-102, Computer Programming I and II, and four other courses in Computer Science (although Math 114, Discrete Mathematics, may substitute for one), at least one of which is at the 200-level.

Here are some sample minors in computer science:

Software sequence: CSci 101-102, Math 114, CSci 160, 170, and 250.

Theory sequence: CSci 101-102, Math 114, CSci 160, 180, 270.

Artificial Intelligence sequence: CSci 101-102, 170, 210, 211, and elective.

Courses

101 COMPUTER PROGRAMMING I/ LECTURE, LABORATORY

An introduction to computer programming using Java. The theme is the top-down approach to problem solving. Algorithms are developed for the solutions to stated problems, then translated into Java and tested on the computer. For the laboratory component, students are expected to write approximately seven programs throughout the course. Specific topics include decision making, logic design, iteration, arrays, text files, and records. Satisfies the formal analysis requirement. No prerequisites. This course is a prerequisite for most higher-numbered computer science courses. Mr. Chou, Mr.Green, Mr. Joyce/Offered every semester

102 COMPUTER PROGRAMMING II/LECTURE, LABORATORY

A continuation of CSci 101, covering such topics as string manipulation, data files and their processing, pointer variables, and dynamic data structures such as linked lists, stacks, queues, and binary trees. The usage and implementation of recursion also is discussed. Approximately six programming projects are assigned as the laboratory component of the course. These projects entail the design and implementation of programs involving the topics mentioned above. Prerequisite: CSCI 101. Mr. Chou, Mr.Green, Mr. Joyce/Offered every semester

115 COMPUTER SIMULATION LABORATORY

See Physics 115. Mr. Gould/Offered every year

120 THROUGH 129: SHORT COURSES IN PROGRAMMING LANGUAGES/LECTURE, LABORATORY

Short midsemester courses for 1/4 or 1/2 credit each. Each course will introduce a new programming language to students who already know at least one high-level programming language. Prerequisite: a one-semester college-level programming course. Offered as credit/no credit and do not fulfill any requirements towards the computer science major. Staff/Offered periodically

140 ASSEMBLY LANGUAGE AND COMPUTER ORGANIZATION/ LECTURE, LABORATORY

Covers fundamentals of assembly language programming such as data representation, the instruction set, addressing mode, macros, procedures, input and output facilities, assembler and linker, introduction to logic circuits, and the basic machine organization of conventional computers. The goal is to understand how a computer performs various tasks that are completely hidden from the user in a high-level language. For the laboratory component, students will write several programs in assembly language. Prerequisite: CSci 102. Mr. Chou, Mr. Joyce/Offered every year

160 DATA STRUCTURES AND ALGORITHMS/LECTURE, DISCUSSION, LABORATORY

Deals with advanced data structures such as sets, trees, and graphs, together with the algorithms to manipulate them. Applications to searching and sorting are discussed. Topics include: analysis of algorithms, general trees, balanced trees, priority queues, hash tables, merge-sort, quick-sort, radix sorting and searching, and elementary graph algorithms. Involves a fourth-hour problem-solving session. Programming projects are assigned for the laboratory component. Prerequisite: CSci 102 and Math 114. Mr. Chou, Mr. Green/Offered every year

170 ANALYSIS OF PROGRAMMING LANGUAGES/LECTURE

Deals with the issues of the design and implementation of programming languages from both the syntactic and the semantic point of view. Topics include: the representation of rules of syntax, using context-free grammars, parsing, semantic constructs, control structures, implementation of procedures and parameters, implementation of recursion, and an introduction to the organization of compilers. A typical group term project may be to design and implement a compiler or interpreter for the actual implementation of some language. Prerequisites: CSci 102 and Math 114. Mr. Green/Offered every year

180 AUTOMATA THEORY/LECTURE, DISCUSSION

Studies the abstract models of machines and languages recognized by them, and introduces the concept of computability. Begins with a review of sets, functions, and relations, then continues with finite automata and regular languages, pushdown automata and context-free grammars, grammar transformations and normal forms, and finally the mathematical model of modern computers: Turing machines and computable functions. Some examples of unsolvable problems, such as the halting problem, will be discussed. Involves a fourth-hour problem-solving session. Prerequisite: CSci 102 and Math 114. Mr. Chou, Mr. Green, Mr. Joyce/Offered every year

201 PROSEMINAR IN COMPUTER SCIENCE/SEMINAR

The presentation of topics in computer science by and for senior undergraduates. These presentations acquaint students with diverse subjects, introduce them to researching known topics, and give them practice in presenting material to their peers. Faculty members will also present some research topics. Possible areas the topics may be drawn from might include robotics, networking, NP complete problems, neural networks, expert systems, parallel algorithms. Prerequisites: CSci 160 and CSci 170. Staff/Offered periodically

210 ARTIFICIAL INTELLIGENCE/ LECTURE, LABORATORY

Focuses on the fundamental ideas of artificial intelligence and programming in Lisp. Topics included are knowledge representation schemes, problem representation through explicit models, search techniques, analogy and pattern recognition, natural language parsing, and planning. Students implement the above ideas through computer programs written in Lisp. Language instruction is provided in Lisp (or Prolog), although no prior knowledge of these programming languages is assumed. Open to all students who have taken at least one semester of programming (in any language). Staff/Offered every year

211 TOPICS IN ARTIFICIAL INTELLIGENCE/LECTURE

Selected topics in artificial intelligence are studied in more depth, assuming CSci 210, Artificial Intelligence, as a foundation course. Topics may be drawn from the fields of robotics, machine learning, knowledge representation, logic programming, or the use of artificial intelligence techniques in some application field. Topics vary from year to year. Prerequisite: CSci 210. Staff/Offered periodically

212 NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING/ LECTURE, LABORATORY

See Math 212. Mr. Chou, Ms. Sternberg/Offered every other year.

215 OPERATING SYSTEMS/ LECTURE, LABORATORY

Studies the structure, performance, and design of operating systems. Topics include concurrency, deadlocks, scheduling, and memory management. Various operating systems may be examined and compared. Students will design and implement parts of operating systems. Prerequisite: CSci 160. Mr. Green/Offered every other year

220 DATABASE MANAGEMENT AND SYSTEMS DESIGN/LECTURE

An advanced course on the realities of database technology. Emphasizes the goals of database management: performance, data integrity, future compatibility, and versatility. The concept of the data model is examined and a specific database is discussed. Concentrates on database design and specification. Prerequisite: CSci 160. Mr. Chou/Offered every other year

230 COMPILER DESIGN/LECTURE, LABORATORY

A continuation of CSci 180, Automata Theory. It uses the automata and grammars introduced in CSci 180 to design translators (compilers) for programming languages. Topics include lexical analysis, top-down parsing, bottom-up parsing, syntax-directed translation, type checking, run-time environment, code generation, and an introduction to code optimization. A typical term project is to write a compiler for a simple programming language such as a subset of C or Pascal. Prerequisites: CSci 160 and CSci 180. Mr. Chou, Mr. Green/Offered every other year

240 COMPUTER ARCHITECTURE/LECTURE

A study of the design of computers. Topics include the design of combinatorial and sequential circuits, design methodology of a basic computer, central processor organization, microprogramming, memory organization, input-output organization, and arithmetic processor design. As time permits, further topics, such as vector and parallel processing, are discussed. A functional, logical (theoretical) approach is adopted. Physics 119, Electronics Laboratory, is recommended so that students gain hands-on experience with computer chips. The science of design is stressed together with the existing machines. Prerequisite: CSci 140. Mr. Chou, Mr. Joyce/Offered every other year

250 SOFTWARE DESIGN AND DEVELOPMENT/SEMINAR

Students consider the life cycle of large software projects, beginning with the elicitation and definition of users' requirements, and continuing through software design, documentation, coding, testing, and maintenance. Topics include: modularity, coupling, cohesion, transformational and transactional structures, and testing strategies. Working in teams, students gain practical experience developing software to solve concrete problems. Prerequisites: CSci 160 and CSci 170. Staff/Offered periodically

270 THEORY OF COMPUTATION/LECTURE

Studies the nature and formal models of computation (by computers), its power and limitation (computability versus uncomputability), the computational complexity of various problems, and the applications in logic and computer science. Turing machines, general recursive functions, and other standard models of computation are introduced. Other aspects of recursion theory such as unsolvable problems and recursively enumerable languages are introduced. We also address the more practical question "What is an efficient program?" in an introduction to modern complexity theory. Prerequisite: CSci 180. Mr. Chou, Mr. Green/Offered every other year

ECONOMICS

Department Faculty

John C. Brown, Ph.D., *chair: economic history, European economy*
Daniel M. Bernhofen, Ph.D.: *international trade, industrial organization*
Frank Puffer, Ph.D.: *regional economics, health economics*
Jacqueline Geoghegan, Ph.D.: *environmental economics, econometrics.*
Wayne B. Gray, Ph.D.: *labor economics, econometrics*
Robert C. Hsu, Ph.D.: *economic development, comparative economic systems, international economics*
Zheng Liu, Ph.D.: *macroeconomics, international finance*
Attiat F. Ott, Ph.D.: *public finance, health economics, macroeconomics*
E.C.H. Veendorp, Ph.D.: *microeconomic theory, industrial organization*
Maurice D. Weinrobe, Ph.D.: *monetary economics, economics of population*

Emeriti Faculty

Howard W. Nicholson, Ph.D.: *history of economic thought, accounting, investment, economic methodology*
Roger C. Van Tassel, Ph.D.: *international trade and finance, political economy*

Undergraduate Program

Economics offers a flexible, yet consistent framework for understanding key issues facing the economy and society, from globalization of international trade and finance to global warming. The major and minor in economics offer students an opportunity to learn the key elements of this framework and to provide them with ample opportunities to apply it to a wide range of key economic issues. The Ph.D. program enriches the intellectual community in economics with opportunities for undergraduates to get to know advanced students in economics and for students to take advanced courses in statistics and economic theory not typically available to undergraduate majors.

Since it first attempted to explain the growth and wealth of nations more than two hundred years ago, economics has evolved into a modern social science that combines a coherent analytical framework with careful analysis of information to understand how economies work and develop and the consequences of economic policies and change. It applies the basic logic of individual choice and market forces to explore the tradeoffs inherent in addressing many of the key concerns on today's agenda: ensuring rising living standards in the developed and developing countries, assessing the impacts of international trade, and identifying the wisest use of scarce environmental resources among many others.

The major in economics builds on the expertise the student develops in the first two semesters of courses. It combines a solid background in the core of economic analysis with a wide range of applied courses that investigate the most important fields of economics and many important topics. The capstone experience, honors program, internships, and study abroad offer opportunities for majors to acquire research experience, apply economics in government or business, and deepen their understanding of economic issues.

The economics major also provides skills that are highly valued in a number of careers and graduate programs. The economics major emphasizes developing skills of careful thinking and analysis in combination with the application of those skills in actual settings. Law schools welcome the background economics provides in logical thinking. Government agencies and graduate programs in public policy or economics appreciate the systematic approach to understanding the economy offered by economics. Business schools and businesses find the facility the economics major acquires in analytical thinking and quantitative methods of analysis attractive.

Requirements For The Major

The requirements for the major include 12 courses overall: five required core courses in quantitative methods and economic theory;

five elective courses in economics, and two related courses in fields outside of economics. A course including a capstone experience must be taken during the senior year.

Upon declaring the major, students also choose an advisor from among the economics faculty. Students are encouraged to use their initial meetings with their advisor to develop a program that meets their interests and goals. For example, a student concerned about environmental change and developing countries may combine coursework in Environmental Economics (Econ 155 or Econ 257) with Population Economics (Econ 247) and Economic Development (Econ 128 or Econ 228). Students planning on graduate work in economics should consult their advisor early on. Graduate work in economics demands strong mathematical skills, including calculus and other courses in math.

The Undergraduate Economics Handbook provides many detailed suggestions on how students can tailor their major to their interests and career goals including a worksheet for planning the program in the major.

Core Courses

The five core courses provide all students with a common language and a common set of skills that ensure the student is prepared for study of the subfields of economics in the 100- and 200-level elective courses. They also enhance the student's understanding of economic analysis. Economics 10 provides an introduction to the economic way of thinking using a comparative approach. First-year students may also elect to take a first-year seminar course (Econ 100) that provides an in-depth look into key economic issues such as international economic relations or population in place of Economics 10. Either of these courses is the prerequisite for all 100-level courses and Economics 11. Economics 11 provides students with an overview of the key analytical tools of economics and is the prerequisite for all 200-level courses.

Courses in intermediate microeconomics (Economics 205) and intermediate macroeconomics (Economics 206) deepen the major's understanding of the economic analysis of individual and firm choices, markets, and the economy as a whole. Coursework in statistical analysis (Economics 160) acquaints students with how information can be used to confront hypotheses suggested by basic economic analysis. Majors must have a grade point average of 2.0 in the core courses.

Economics Electives

The five economics electives and the two related courses provide the student with the opportunity to pursue more focused interests within the major. Courses at the 100-level, which are open to all students who have completed Economics 10 or Economics 100, generally provide students with an in-depth look at the institutions and policies important in understanding economies. Courses at the 200-level, which require prior completion of Economics 11, provide a more comprehensive introduction to the literature of economic analysis in an area. Economics majors are required to take at least three of their electives at the 200-level.

Elective offerings include such fields of economic enquiry as international trade and finance, economic development, public budgetary and tax policy, monetary economics, and labor as well as topical courses in areas such as health economics, comparative(Asia and Europe), environmental economics, the economics of population, economic history, and the economics of sport.

Students are encouraged to group their electives around their own particular interests. Brochures available from the Department provide detailed suggestions on the appropriate economics electives and related courses for students with interests in international economics, development, and the environment.

Related Courses

Economics majors must also complete two courses that are offered outside of the Economics Department, yet are related to the goals of the economics major. Some courses will satisfy the related course requirement under all circumstances. They include math courses at the level of calculus or above, management courses in accounting, finance, Management and Information Systems (MIS) and operations management, computer science courses, and some courses in economic geography.

Other courses can also meet this requirement provided they complement the program a student has developed. For example, many courses in International Development would provide an important background for a student who has taken Economic Development (Econ 128 or Econ 228), or a student with an interest in government tax and budget policy may want to take additional courses in Government. The departmental faculty advisor can provide suggestions for related courses of this type.

Capstone

Taken during the student's final year in the major, the course that fulfills the capstone requirement offers an opportunity for the student to draw upon the skills and background acquired during the previous years of study. The capstone courses allow students to acquire in-depth knowledge of a topic of interest using a combination of economic analysis and empirical research. The capstone course counts as one of the five economics electives.

There are three ways of meeting the capstone requirement:

a) Participation in the Honors Program (see below)

b) 200-level economics research course. Currently, all 200-level courses include a capstone component.

c) Directed Research course. For students unable to meet the capstone requirement through (a) or (b), arrangements can be made for individually directed research work.

Students must submit the yellow capstone declaration form with the instructor's signature to the Economics Department when enrolling in a course that they have designated as their capstone.

The Honors Program

Economics majors with outstanding academic records (a GPA of 3.4 in economics courses, 3.0 overall) may be accepted by the department as candidates for departmental honors. For students to receive departmental honors, they must also successfully complete an honors thesis. Prospective candidates for honors should develop a proposal for the thesis and identify a faculty supervisor during the second semester of the junior year. During the fall of the senior year, the students will enroll in Economics 299, Sec. 8, Honors. The student then writes a thesis under the direction of a faculty supervisor. During the spring of the senior year the thesis is evaluated by the department for possible departmental honors.

Requirements For The Minor

Students majoring in another discipline often discover that a minor in economics can provide a background that can complement their major and allow them to explore an interest in economics. The minor requires a minimum of six courses in economics including Econ 10 and Econ 11. Of the remaining four courses, at least two of them must be at the 200 level. Only courses with a final grade of C- or better will be counted toward the minor.

Study Abroad And Internships

A number of study abroad programs and internships offer important opportunities for students in economics. Each year, a select group of a few juniors in the economics major attend the prestigious London School of Economics for two semesters of study. Many majors take advantage of study abroad opportunities elsewhere as well. Economics majors receive major credit for participation in the London Internship program, which places students in government or business internships in London; the Washington Center program, which places students in internships designed to acquaint them with policy-making at the federal level; and the Washington Semester program. Other internships can be arranged through the Clark Internship Office under Econ 299, Sec. 9. They offer students an opportunity to apply economic analysis in governmental or business settings. Although they can be taken for Clark credit, they do not count towards the ten required courses in the major. Your faculty advisor can provide you with the departmental guidelines for internships in economics.

Graduate Program

Clark University offers a unique program of graduate study and research leading to the doctor of philosophy in economics. The Economics faculty provides students with an excellent opportunity for qualified students to develop proficiency in economic theory, econometrics, and their chosen fields of specialization. The design of the Ph.D. program emphasizes that students acquire experience carrying out independent research. The collegial size of the program ensures students ample opportunities to work with faculty.

The requirements for the Ph.D. include a core of five courses in economic theory and three in mathematical economics and econometrics; qualifying examinations in microeconomic and macroeconomic theory; completion of two fields of the student's choice; completion of two elective courses; and the dissertation. Where appropriate, graduate students may elect to take a limited amount of work in related courses offered by other departments. At least two full academic years of graduate work or the equivalent in part-time work in residence at Clark are necessary. Some teaching and research experience at Clark, or other such teaching and research as the department may regard as equivalent, is prerequisite to the doctoral degree.

Ph.D. students can satisfy the requirements for econometrics and mathematical economics by passing designated courses offered in the department, or in the case of prior preparation, by passing a test given by the department. The student meets the economic theory requirement by satisfactory completion of the theory courses Economics 300, 301, 302, 303, and 304, and by passing two preliminary examinations.

Fields of specialization and/or electives may be selected from among the following: open economy macroeconomics, public finance, industrial organization, international trade, economic development, applied econometrics, health economics, environmental economics, or one field selected from related subjects. At least two field courses are offered annually. Typically, two fields or one field and two electives are taken during the second year, and the remaining requirement is completed during the third year. Students are required to present at least one paper written to meet field requirements to the Departmental Seminar. Electives should be chosen to provide depth to the Ph.D. students background in economics or breadth needed to carry out dissertation research.

Preparation for writing the dissertation begins during the third year, when the student starts writing the dissertation prospectus. The prospectus lays out the intellectual motivation for the dissertation and the research plan designed to complete it. The dissertation must be an original contribution to knowledge that is based upon independent research, convincingly presented, and acceptably written. The dissertation must be completed within five years of passage of the preliminary examinations. If it is not, the student must successfully retake the preliminary examinations in economic theory before defending the dissertation. Under certain circumstances, published articles may be accepted by the department instead of a dissertation.

The student presents the completed dissertation prospectus at an informal conference with all graduate students and faculty invited to attend. After the presentation, the primary advisor, in consultation with the chair of the department, appoints the dissertation committee if the topic is judged feasible. Upon completion of the dissertation in a form acceptable to the committee, the candidate makes a copy of the dissertation available to the department, the faculty, and the graduate students for two weeks prior to the dissertation defense. The defense is presented at a seminar open to all faculty and graduate students in the department. Final approval of the dissertation is granted by the committee after consideration of any suggested changes or questions arising from the seminar. Students enrolled in the Ph.D. program may be awarded the M.A. degree upon satisfactory completion of a two-year residency and the preliminary exams. In the case of students who do not continue toward the Ph.D., the M.A. may be awarded upon satisfactory completion of twelve required courses or one-year residency, an M.A. thesis and an oral exam. A student should discuss program plans with the graduate student advisor before registration day and secure approval of the course program.

Scholarship assistance for students admitted to the Ph.D. program is available. Full or partial tuition remission may be granted to particularly well-prepared students. In addition, several teaching assistantships are also awarded, enabling graduate students to gain experience in undergraduate instruction. These cover remission of tuition and a cash payment, currently up to $8,750 for part-time work. Employment as a research assistant in the department is also typically available for well-qualified students.

Institute for Economic Studies

The Institute for Economic Studies was established in 1980 with an initial grant from the John M. Olin Foundation. The Institute's main objectives are to research significant economic policy issues facing the nation and to disseminate the results of the research to a broad audience through conferences and publications.

The Institute provides a framework within which international scholars engage in cooperative research and exchange of ideas. The Institute's activities are supported through annual private grants. The director of the Institute is Professor Attiat F. Ott.

Courses

010 ECONOMICS: A COMPARATIVE APPROACH/LECTURE, DISCUSSION

Introduces the vital contribution economics can make to systematic thought and understanding by analysis of important current policy issues. Rather than emphasizing economic theory, the course begins with a comparative analysis of issues in the social sciences that are of obvious and important concern. From a study of issues, the course proceeds to show how development and use of some basic economic concepts can aid materially in the analysis. Open to first-year students. Multiple sections. Staff/Offered every semester

011 PRINCIPLES OF ECONOMICS/LECTURE, DISCUSSION

Introduction to economic analysis. Develops a set of economic concepts used in the 200-level courses offered in the department. Elements of price and income theory are emphasized. Policy questions are treated both to reinforce concepts and to illustrate applicability of the analysis. Open to first-year students. Prerequisite: Econ 10. Staff/Offered every semester

108 INTERNATIONAL ECONOMICS: TRADE AND FINANCE/LECTURE, DISCUSSION

Reviews the basic principles of international economics. Examines policy issues in international trade and investment, and explores policy alternatives. Not a prerequisite for Econ 207, but may be taken in preparation for it. Prerequisite: Econ 10. Mr. Hsu/Offered every year.

113 MONETARY ECONOMICS: THEORY AND POLICY/LECTURE, DISCUSSION

Monetary economics investigates the structure of the financial system, the institutions and customs of that system, and the role of money in the economy. The macroeconomics of money and the role of the Federal Reserve (and other central banks) are studied. Mr. Weinrobe/Offered every year

125 HEALTH ECONOMICS/LECTURE, DISCUSSION

Examines the economic processes and activities of health care systems and institutions. Major issues including competition, role of governments, and insurance are among the topics that are investigated to assist students in understanding how economic considerations affect the delivery of care. Mr. Puffer/Offered periodically

126 PUBLIC POLICY TOWARD BUSINESS/ LECTURE, DISCUSSION

Examines the various types of industrial organization, the degrees of monopoly in competition, and the development of public policies that affect business. Among issues traced are the development of antimonopoly regulation, consumer protection, and public utilities. Business performance and government regulations are related to criteria from economic theory. Prerequisite: Econ 10. Mr. Veendorp/Offered periodically

128 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Covers same general material as Econ 228, but requires less previous preparation in economics. Offered in alternate years with 228 (see Econ 228). Prerequisite: Econ 10. Mr. Hsu/Offered every other year

142 EUROPEAN ECONOMIC HISTORY/ LECTURE, DISCUSSION

See Econ 242. Prerequisite: Econ 10. Mr. Brown/Offered every other year

143 AMERICAN ECONOMIC HISTORY/ LECTURE, DISCUSSION

See Econ 243. This course is available as an historical perspective. Prerequisite: Econ 10. Mr. Brown/Offered every year

155 THE ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT/LECTURE

A review of political economic problems associated with such natural resources as land, water, and energy goods, as well as a resource common to all of us, our natural environment. Topics include the assessment of environmental impacts within market-oriented economics, and the use of economics in policy designed to address environmental issues such as air pollution, global warming, biodiversity, and suburban sprawl. Ms. Geoghegan/Offered periodically

160 INTRODUCTION TO STATISTICAL ANALYSIS/LECTURE, DISCUSSION

Examines basic concepts and techniques of statistical method in economic analysis: descriptive statistics, probability theory, sampling distributions, hypothesis testing, and simple and multiple regression. Mr. Puffer, Mr. Veendorp/ Offered every semester

171 FUNDAMENTAL MATH FOR ECONOMICS/LECTURE, DISCUSSION

Introduces the mathematical tools used in economic analysis. After completing this course, the student should feel comfortable with the mathematical techniques likely to be encountered in an undergraduate economics program. Applications are drawn from a variety of fields within economics, but with particular emphasis on microeconomics. Prerequisite: Econ 10 and 11. Staff/Offered periodically

176 COMPARATIVE ECONOMIC SYSTEMS/ LECTURE, DISCUSSION

Examines the major varieties of developed market economies and of transitional and developing economies. Topics include Japan's industrial policy and business groups, Germany's social market economy and codetermination, Sweden's welfare state and labor unions, economic reforms in China and Russia, and economic development in Korea and Mexico. Prerequisite: Econ 10. Mr. Hsu/ Offered every other year

177 JAPANESE AND CHINESE ECONOMIES/LECTURE, DISCUSSION

Surveys the Chinese and Japanese economies—their development, institutions, and policies. Topics include historical background, agricultural development, industrial organization and development, fiscal and monetary policies, employment and labor, Sino-Japanese relations, and relations with the U.S. Prerequisite: Econ 10. Mr. Hsu/Offered every year

205 MICROECONOMIC THEORY/ LECTURE, DISCUSSION

Describes and analyzes how a market-oriented economy functions in answering the five basic economic questions: (a) What commodities to produce? (b) How much of each to produce?

(c) What productive techniques to use and how to provide incentive? (d) How to distribute the output among the various members of society? (e) What provision to make for the future? Interspersed with theory, the course contains frequent examples that demonstrate the use of microeconomics in solving problems faced by the decision-making unit in both the private and public sectors. Prerequisite: Econ 11. Mr. Veendorp, Ms. Geoghegan, Mr. Gray/ Offered every semester

206 MACROECONOMIC THEORY/LECTURE, DISCUSSION

Macroeconomics is one of the core elements of economics. The subject includes the study of the determinants and behavior of the aggregate economy, including income, employment and the price level. The economy is examined at a point in time (statics) as well as over time (dynamics). Mr. Weinrobe, Mr. Liu, Ms. Ott/ Offered every year

207 INTERNATIONAL TRADE THEORY/ LECTURE, DISCUSSION

Studies international trade theory and policy at the intermediate level. Examines the fundamentals of international trade theory: comparative advantage, gains from trade, neoclassical trade theory, trade and income distribution. Traditional and modern instruments of protectionism, arguments for and against free trade, and the role of international institutions are discussed. Prerequisite: Econ 11; Econ 205 is recommended. Mr. Bernhofen/Offered every year

208 INTERNATIONAL MONETARY THEORY/ LECTURE, DISCUSSION

International macroeconomics at the intermediate level. The fundamentals of international finance are studied: operations of international currency markets; the concept of the balance of payments; fixed versus flexible exchange rate regimes. Analyzes macroeconomic policies under different exchange rate regimes; theories of exchange rate determination, and the working of different international monetary regimes. Prerequisite: Econ 11 and 206 are recommended. Mr. Bernhofen/Offered every other year

215 GOVERNMENT FINANCE: BUDGET POLICY IN A COMPARATIVE SETTING/LECTURE, WORKSHOP

Develops concepts relevant to the study of government finance under alternative structures: federalism, unitary governments, and regime types: democratic/authoritarian. Analyzes topics such as the conflict between public interest and private interest, the size and growth of government, and the application of budget policy to achieve efficient allocation of resources and economic growth. The decision-making process of the government is examined using public choice (voters-bureaucrats) models. Prerequisite: Econ 11 or permission of instructor. Ms. Ott/Offered every other year

216 TAX AND DEBT FINANCE/LECTURE, WORKSHOP

Applies tools of economic analysis to the study of taxation and the public debt. Analyzes emerging issues in taxation such as the flat tax, consumption-based tax and the value-added tax. Concepts such as the trade-off between equity and efficiency, tax burden, tax competition and tax exporting are explained with reference to experiences of the U.S. and its trading partners. The equivalence of debt finance to tax finance is analyzed. The implication for growth in the public debt for the stability and performance of the U.S. economy is critically evaluated. Prerequisite: Econ 11 or permission of instructor. Ms. Ott/Offered every other year

222 LABOR/LECTURE, DISCUSSION

Applies the concepts of labor supply and labor demand in a basic model of labor markets. The model is used to analyze the results of the labor market: wages, employment, and unemployment. The analysis is modified to allow for market imperfections and nonmarket forces, including trade unions and the government. Further topics include wage discrimination and income inequality. Prerequisite: Econ 11. Mr. Gray/Offered periodically

223 CONTEMPORARY POLITICAL ECONOMY/ SEMINAR

Examines the interaction of political and economic forces in evolving capitalist and socialist societies. Prerequisite: Economics 11. Staff/Offered periodically

225 HEALTH POLICY/LECTURE, DISCUSSION

Analyzes the role economics plays in shaping U.S. health policy. Among issues discussed are: health as a "priceless" commodity, the relationship between health and wealth, moral hazard of health outcomes in relation to medical intervention, the consequences of longevity for the cost of medical intervention and quality of life. Access to health care, especially lack of health insurance, is examined within alternative delivery systems: nationalized versus private-public mix. Future health policies for the U.S. are discussed in the context of intergenerational allocation of societal resources between the young and the old. Prerequisite: Econ 11 or permission of instructor. Ms. Ott, Mr. Puffer/Offered every other year

226 INDUSTRIAL ORGANIZATION/LECTURE, DISCUSSION

Takes the concepts learned in Intermediate Microeconomic Theory to the next level. More complicated theories of firm behavior are examined. By allowing issues such as product differentiation and imperfect knowledge to enter the analysis, students gain access to more realistic views of industrial structure and performance. Practical applications of these theories can then be examined through the use of specific industry studies. Prerequisite: Econ 11. Mr. Veendorp/Offered periodically

228 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Examines the major theories of economic development, the major problems confronting less developed countries, and the policies and strategies appropriate for economic development. Topics include agricultural development, income distribution, industrialization strategies, foreign aid and investment, population, labor, and employment. Offered in alternate years with Econ 128. Prerequisite: Econ 11. Mr. Hsu/Offered every other year

242 EUROPEAN ECONOMIC HISTORY/LECTURE, DISCUSSION

Emphasizes that the economic history of Europe offers key lessons for understanding contemporary debates about development, economic performance, and globalization. After a close look at the pre-industrial Malthusian economy, the course critically explores industrialization and its consequences in Great Britain, Germany, France and Russia.

An investigation of economic integration before 1914, the Great Depression, and the post-1945 rebuilding of Europe offers insights into the causes and impacts of economic integration. Prerequisite: Econ 11.

Mr. Brown/Offered every other year

243 AMERICAN ECONOMIC HISTORY/LECTURE, DISCUSSION

Offers a comprehensive survey of the development of the United States economy from a colonial backwater to a leading industrial power. It emphasizes the use of economic reasoning to understand historical controversies such as the struggle over slavery, the causes of the Great Depression, discrimination in labor markets, and the rise of the American export economy. Fulfills historical perspective. Prerequisite: Econ 11. Mr. Brown/Offered every year

244 EUROPEAN ECONOMY: EAST AND WEST/LECTURE, DISCUSSION

Offers a critical examination of European approaches to economic policy. In the West, these include the modern welfare state (widely available health care and housing), a more heavily regulated labor market, and moves toward a common market and currency. In the East, governments relied upon central planning and state ownership, even scoring some initial successes. Blending the tools of economic analysis with a close look at policies, this course will offer answers to these questions and an introduction to the economic challenges facing Western and Eastern Europe in the aftermath of the revolutions of 1989. Prerequisite: Econ 11. Mr. Brown/Offered every year

247 ECONOMICS OF POPULATION/LECTURE, DISCUSSION

The economics of population, economic demography, is the analysis of the economic forces that influence population and the demographic factors that affect traditional economic variables. The subject has strong ties to the economics of development, labor, health, and macroeconomics, as well as to other disciplines of the social sciences. Prerequisite: Econ. 11. Mr. Weinrobe/Offered every year

250 ECONOMICS OF SPORT/LECTURE, DISCUSSION

Applies economic analysis to the sports industry. While the primary focus is on professional team sports, individual and amateur sports are covered as well. Labor relations, antitrust law, public subsidization of sports facilities, discrimination, and sports broadcasting are among the topics that are covered from an economics perspective. Prerequisite: Econ 11. Mr. Puffer/ Offered periodically

257 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

Examines some of the issues associated with the economics of natural resources and the environment. Topics discussed, at both the theoretical and empirical level, are chosen from the following: the theory and analysis of renewable and nonrenewable resources, resource scarcity and the economy, sustainable development, and the measurement of the benefits and costs of environmental regulation. Proper policies are discussed to encourage resource conservation, the problems of common property resources and the use of economic incentives to internalize environmental externalities. Ms. Geoghegan/Offered periodically

265 ECONOMETRICS

This course deals with the application of statistical methods to economics. The objective is to expose students to: economic model building, testing the model statistically and applying the model to practical problems in forecasting and analysis. By understanding the theoretical and econometric basis of equations, students gain proficiency in formulating, estimating and interpreting testable relationships on their own. Staff/Offered periodically

267 APPLIED ECONOMIC RESEARCH

This course introduces students to the tools of applied economic research in the context of a large research project, carried out as a collaborative effort. Students will be split into research teams for data collection and analysis. The course will cover different topics, depending on the research interest of the instructor. Prerequisite: Econ 160 and permission of the instructor. Mr. Gray, Mr. Brown/Offered every other year

271 INTRODUCTION TO MATHEMATICAL ECONOMICS/LECTURE, DISCUSSION

An introductory survey of the use of mathematical methods in economic analysis. Topics include elements of linear algebra, optimization, and differentiated equations. Prerequisite: Econ 11 and permission of instructor. Offered for variable credit. Mr. Veendorp/Offered every year

273 FORECASTING/LECTURE, DISCUSSION

Investigates a number of forecasting techniques commonly used in economic analysis. Among the techniques covered are time series analysis, econometric models, simulation models, and expectations surveys. Prerequisites: Econ 11 and 160 or equivalent. Mr. Puffer/Offered periodically

277 URBAN ECONOMICS/LECTURE, DISCUSSION

Economic decisions made by firms and individuals regarding production, investment, and consumption activities inevitably involve a location decision. The implications of such location decisions for urban structure, urban and regional growth, and the existence of cities themselves are discussed. Topics include: location theory, interregional input/output tables, migration and regional growth. Prerequisite: Econ 11. Staff/ Offered periodically

299 SEC. 1 DIRECTED READINGS

Offered for variable credit. Staff/Offered every year

299 SEC. 2 DIRECTED RESEARCH

Offered for variable credit. Staff/Offered every year

299 SEC. 4 FIELD PROJECT

Offered for variable credit. Staff/Offered every year

299 SEC. 8 HONORS

Students work on an individual basis with a faculty member on an intensive piece of research, culminating in an honors thesis. A student desiring departmental honors must register for one semester of Econ 299.8 in the fall of the senior year. Required for departmental honors. Prerequisite: permission of instructor. Staff/Offered every year

299 SEC. 9 INTERNSHIP
Students spend a semester working full- or part-time outside the University as part of their academic experience. To qualify, the internship experience must significantly involve an extension, embodiment, or illustration of previous or concurrent, systematic academic work in economics. Offered for variable credit. This course does not count toward the economics major.
Staff/Offered every year

The following courses are normally open only to graduate students:

300 INTRO GRAD ECONOMICS THEORY
Staff/Offered every year

301 MICROECONOMICS/SEMINAR
Mr. Veendorp/Offered every other year

302 MICROECONOMICS/SEMINAR
Mr. Brown/Offered every other year

303 MACROECONOMICS/SEMINAR
Ms. Ott/Offered every year

304 MACROECONOMICS/SEMINAR
Staff/Offered every year

313 MONETARY ECONOMICS/SEMINAR
Staff/Offered periodically

325 PUBLIC FINANCE/SEMINAR
Ms. Ott/Offered periodically

326 INDUSTRIAL ORGANIZATION/SEMINAR
Mr. Veendorp/Offered periodically

327 INTERNATIONAL ECONOMICS/SEMINAR
Mr. Bernhofen/Offered periodically

328 ECONOMIC DEVELOPMENT/SEMINAR
Mr. Hsu/Offered periodically

333 HEALTH ECONOMICS/SEMINAR
Mr. Puffer/Offered periodically

355 ENVIRONMENTAL ECONOMICS/SEMINAR
Ms. Geoghegan/Offered periodically

365 BASIC ECONOMETRIC THEORY/LECTURE
Qualified undergraduates need the instructor's permission. Mr. Bernhofen/Offered every year

366 APPLIED ECONOMETRICS/ SEMINAR
Mr. Gray/Offered periodically

EDUCATION

Department Faculty

Tom Berninghausen, Ph.D.: *Literature and humanities learning*
S. Leslie Blatt, Ph.D.: *Experimental physics, methods and practice in science education, science and society, environmental issues and their scientific dimensions*
Thomas Del Prete, Ed.D., *chair: Teacher education, professional development schools, building learning communities, spirituality and education*
Sharon Griffin, Ph.D.: *Emotional development, cognitive development, mathematics education*
Sarah Michaels, Ph.D.: *relationships among language, discourse, culture, and schooling; discourse analysis relating to classroom life and learning; teacher research*
Maureen Reddy, Ed.D.: *Literacy, classroom discourse, children's literature, teacher research*
David S. Zern, Ph.D.: *Moral development, values and religiosity; exploration and development of values education in schools; teacher research; analysis of learning and teaching*

Visiting Faculty

Denni Palmer Wolfe, *visiting research associate*

Clinical Faculty

Kenner Myers, M.S. in Education
Nathaniel C. Seale, M.Ed.
Marlene Shepard, M.A.

Emeriti Faculty

Helen J. Kenney, Ed.D.
William C. Kvaraceus, Ed.D.

Programs offered through the Education Department and Jacob Hiatt Center for Urban Education build on and extend students' work in the liberal arts. Programs accommodate both those students who are preparing to assume professional roles in education and those interested in learning about education for its own sake.

Program Overview

In collaboration with the Worcester Public Schools, the Education Department, the Jacob Hiatt Center for Urban Education, and liberal arts faculty work together to provide students with outstanding programs in teacher education. These programs correspond to the two levels of teacher certification required in the Commonwealth of Massachusetts.

The programs in "provisional" teacher certification enable both undergraduate and graduate students to qualify for the "provisional certificate with advanced standing" at the elementary, middle, or secondary teaching levels. The master's program in "Urban Education and Teacher Research" is designed to fulfill state requirements for the "standard" teaching certificate, which teachers who hold the provisional certificate with advanced standing must earn within five years of beginning teaching. In addition, the department offers special programs in human services and school psychology, and an Office for Children licensure program for students who wish to work in preschool or day-care settings.

Core Values and Commitments

- preparing students to work with diverse groups of children in urban settings, with emphasis on understanding the role of language and culture in education;
- developing teachers as reflective learners and practitioners able to build learning communities with both children and adults, in part by introducing them to various "ways of knowing" in the liberal arts;
- developing teachers as "researchers" disposed and able to inquire into their own teaching practice and children's learning;
- collaborating among education faculty, liberal arts faculty, researchers, teachers, and students in the "professional development school" partnership between Clark and the Worcester Public Schools;
- exposing students to exemplary learning programs for children in the professional development schools established through the efforts of the Hiatt Center, Education Department, and the Worcester Public Schools.

Jacob Hiatt Center for Urban Education

The Jacob Hiatt Center for Urban Education represents a partnership between Clark University and the Worcester Public Schools, dedicated to rethinking the challenges and possibilities of contemporary urban schools. The center brings together teachers, administrators, researchers, and students to foster innovation and scholarship in education in a changing world. The Hiatt Center seeks to set a new vision and standard for urban education nationwide.

Professional Development School Collaborative

The Hiatt Center and Education Department have established a K-12 professional development school (PDS) collaborative with the Worcester Public Schools dedicated to building a learning community in which teachers, Clark students and faculty, and children will all thrive. The elementary, middle, and secondary level PDS sites join the best of university and school, thus providing a stimulating and supportive environment for teacher education.

"Provisional" Teacher Certification Programs (undergraduate and graduate)

In order to qualify for the provisional teaching certificate with advanced standing in Massachusetts, a student must earn (or hold) a bachelor's degree in the arts and sciences with a disciplinary or interdisciplinary major, and must have taken courses appropriate to her/his instructional field(s). In addition, a student must meet the requirements for certification set by the state Department of Education.

The Education Department and Hiatt Center offer programs leading to the provisional certificate with advanced standing at the elementary, middle, and secondary levels for both undergraduate and graduate students. Each program integrates course work with field experiences in professional development schools under the guidance of education faculty and expert practitioners. It may be possible for qualified undergraduates to complete a provisional certification program during a tuition-free fifth year (a non-degree option related to

Clark's "BA/MA" program). Graduate students may also be able to complete a program during a single academic year.

Interested students should contact the appropriate program director in the Education Department as early as possible to discuss program details and planning. The basic requirements for each program are listed below:

Elementary (Grades 1-6) Provisional Program

EDUC 152 Complexities of Urban Schooling (required for undergraduates only)
EDUC 260 Literacy Development
EDUC 264 Knowledge, Development & Instruction
EDUC 282 Ways of Knowing in the Arts
EDUC 283 Ways of Knowing in the Social Sciences
EDUC 284 Ways of Knowing in the Humanities
EDUC 286 Ways of Knowing in the Physical and Natural Sciences
EDUC 287 Ways of Knowing in Mathematics
EDUC 288A Practicum: Elementary Teaching and Learning
EDUC 288B Seminar in Elementary Teaching and Learning

Middle School (Grades 5-9) Provisional Program

(In the following areas: Biology, English, General Science, History, Mathematics, Physics and Social Studies)

EDUC 190 Experience of Adolescence or PSYC 150 Development in Child and Adolescent
EDUC 270 Sec. 1 Becoming an Effective Middle School Educator
EDUC 152 Complexities of Urban Schooling or
EDUC 271 Cultures of American Schools
One "Ways of Knowing" course corresponding to teaching field (see list above)
EDUC 278A Practicum: Middle School Teaching and Learning
EDUC 278B Seminar in Middle School Teaching and Learning

Secondary (Grades 9-12) Provisional Program

(In Biology, Business, Chemistry, English, French, General Science, History, Mathematics, Music, Physics, Social Studies, Spanish and Visual Arts)

EDUC 190 Experience of Adolescence
EDUC 270 Sec. 2 Becoming an Effective Secondary School Educator
EDUC 271 Cultures of American Schools
EDUC 272 Focusing on a Discipline
EDUC 279 Practicum: Secondary School Education

Master's in Urban Education and Teacher Research

("Standard" Teacher Certification Programs)

The master's program in Urban Education and Teacher Research is designed to meet state requirements for the standard teaching certificate at the elementary, middle, and secondary levels for those who have achieved the provisional certificate with advanced standing.

It will also serve teachers who are already fully certified. For full-time students seeking standard certification, including undergraduates who qualify for the five-year "BA/MA" program in education, this one-year, 10-course program provides well-rounded experiences: core courses in the areas of culture, language, teaching and teacher research; extensive teaching responsibility in professional development schools under the guidance of education faculty and expert practitioners; intensive summer institute courses; course work in a student's teaching field; a teacher research project and report.

Master's Required Courses

EDUC 311 Teaching and Learning
EDUC 327 Culture, Language, and Education
EDUC 367 Clinical Field Experience and Seminar I
EDUC 368 Clinical Field Experience and Seminar II

In addition, full-time students seeking standard certification normally take two summer institute courses and up to two additional courses during the academic year. At least two of these remaining courses must correspond to a single subject area if at the elementary level; at least three must correspond to a student's teaching field if at the middle or secondary level. Students who are already fully certified take additional course work in lieu of field experience. All of the courses for full- or part-time students must be determined in consultation with the program director or teacher education program assistant.

Special Programs

Office for Children Licensing Program

Students can become licensed pre-school "lead" teachers in private facilities and day-care centers under guidelines set by the Commonwealth of Massachusetts. For licensing under the Office for Children, students major in an academic discipline and take at least four courses in child development, curriculum, families, and the teaching of young children. Students then complete a two-credit internship at the kindergarten or pre-school level. Individual advising is necessary; please see the coordinator of the OFC program.

Required Courses:
EDUC 184 The Early Childhood Educator
PSYC 150 Child Development
EDUC 289 Practicum in Early Childhood
Choice of at least two additional courses to complete OFC requirements.

Human Services Program

This four-course sequence is designed for students interested in pursuing a career and/or graduate study in education and the helping professions. Students will have course work and field experiences dealing with diverse groups including children, families, and the aged in settings which include schools, the court system, mental health agencies, and institutions. Students will acquire skills through a balance of study and applied field work. Work in the Worcester area will serve to integrate material from the sequence.

Students receive an official transcript notation documenting the completion of this program.

EDUC 155 Education and Social Policy
EDUC 194 Field Experience I
EDUC 195 Field Experience II
EDUC 269 The Skilled Helper

School Psychology Program

This four-unit sequence provides intensive first-level training for students in the junior and senior years considering advanced graduate work in school psychology and related professional fields. Students are required to complete a two-semester placement for 10 hours a week under the supervision of a school counselor/social worker/school psychologist. Students receive an official transcript notation documenting the completion of this program.

EDUC 266 Analysis of Individual Ability and Style
EDUC 268 Section 1 Psychoeducational Methods Semester I
EDUC 268 Section 2 Psychoeducational Methods Semester II

Courses

105 FIRST-YEAR SEMINAR: NATURE AND BASIS OF MORAL DEVELOPMENT/LECTURE, DISCUSSION

Mr. Zern/Offered every year

112 FIRST-YEAR SEMINAR: TRANSFORMATIVE SCHOOLING

A field-based seminar exploring the topic of urban schooling and the politics and promises of education reform. Students will serve as research assistants—observing, video taping, and writing about the teaching and learning occurring in various classrooms. At the same time, participants will read widely in the fields of education and society, ethnography, the culture of the classroom, and discourse analysis. Students will learn to be researchers and will write about their experiences. This course is designed for first-year students, with a limit of 15 students. Non first-year students, by permission only. There is a weekly field work commitment of three hours, to be arranged. Ms. Michaels/Offered every year.

152 COMPLEXITIES OF URBAN SCHOOLING/LECTURE, DISCUSSION

Addresses the social and academic questions that surround urban education using linguistic, sociological and psychological perspectives. Through lecture, discussion, and fieldwork, students will explore challenges faced by educators. Required of undergraduate students in the elementary provisional certification program. Ms. Reddy/Offered every year

155 EDUCATION AND SOCIAL POLICY/LECTURE, DISCUSSION

Examines social problems, social policy, and education. Conceptual tools for the analysis of social policies are used. Examinations of existing programs and social agencies enable students to understand agency functions, client population, and the relationship between the individual agency and the larger social service network. Emphasis is placed on social problems and "social solutions," linking individuals and external primary groups with societal resource systems, and the impact of social policy change on individuals and institutions. Mr. Seale/ Offered every year

190 THE EXPERIENCE OF ADOLESCENCE/LECTURE, DISCUSSION

Explores adolescent development through theory and research drawn from the behavioral and social sciences as well as fiction. Students study education during the adolescent years. Special social and interpersonal problems and issues confronting today's adolescent are considered, as are relevant teaching and learning theories. Students apply the course material to both teaching and learning in a series of descriptive and analytic reports. Mr. Zern/ Offered every year

194-195 FIELD EXPERIENCE: SPECIAL EDUCATION AND HUMAN SERVICES/DISCUSSION, FIELD PLACEMENT

Provide direct, supervised experience within educational and human services agencies. Placements are based upon students' experience, goals, and academic backgrounds. Placement possibilities include schools, mental health centers, institutions, the courts, substance abuse centers, crisis agencies, and group homes. A weekly seminar provides the opportunity for students to analyze their field work experience. Special note: These courses may be taken as a full-year, two-course sequence (Education 194 and 195) or as a single course either semester (Education 194). Mr. Seale/ Offered every year

252 YOUNG CHILDREN AND THE ARTS/LECTURE, DISCUSSION, STUDIO

The development of children's abilities to express themselves through varied symbolic forms is examined. Students express themselves using different media in the studio. Classroom instructional at the early childhood and elementary levels are explored. No prerequisites. Ms. Fisher/Offered periodically

254 DISCOVERING PHYSICS/LABORATORY

See Physics 20. Education 254 is open to education graduate students only. Undergraduates take Physics 20. Mr. Blatt, Mr. H. Gould, Mr. M. Gould/Offered every year

256 THEATER IN THE CLASSROOM/SEMINAR

Designed for both classroom teachers and advanced-level theater and education majors. Provides experience using drama and creative arts techniques in the classroom. Involves creating a children's theater production to be performed at area schools, and developing curriculum for production issues. Cross-listed with TA130-31. Ms. Trachtenberg/Offered periodically

260 LITERACY DEVELOPMENT/LECTURE, DISCUSSION, SEMINAR, FIELD PLACEMENT

An overview of the development of reading, writing, and literacy-related oral language abilities from the preschool years through high school. Links between oral and written skills and between reading and writing are examined. Special attention will be given to the teaching of reading and writing in ways that support greater student engagement. Fieldwork in schools will enable students to try out various instructional approaches. Ms. Reddy/ Offered periodically

264 KNOWLEDGE, DEVELOPMENT & INSTRUCTION/LECTURE, DISCUSSION, CLASS EXERCISES

Examines central knowledge structures children acquire during the preschool and elementary years, and how they influence school learning; how these structures develop for typical and atypical children; and opportunities for students to develop skills in developmental assessment and instructional programming. Students use their understanding of children's development to design classroom and remedial learning activities. Ms. Griffin/Offered every year

265 EMOTIONAL DEVELOPMENT/SEMINAR

Examines what emotions are and how they develop from birth to adulthood. Emphasis is placed on emotional development during childhood; on the ways emotions are shaped by cognitive, social, and biological factors; and on the ways emotions shape learning and behavior. Ms. Griffin/Offered every year

266 ANALYSIS OF INDIVIDUAL ABILITY AND STYLE/LECTURE, DISCUSSION, PRACTICUM

Uses techniques to understand the individual as a whole. The theory of individual assessment, some tools for assessment, and the analysis of assessment data will be covered. Focus is placed on understanding, administering, and interpreting both traditional and alternative assessment tools, including measures of cognitive ability, scholastic achievement, and personality. Students are required to administer assessment procedures and analyze case histories. Mr. Zern/Offered every year

267 ROLE OF VALUES IN EDUCATION/LECTURE

Explores the roles values play in the educating process. A classification of values will be developed, followed by a variety of models to understand how values develop in a society. Selected descriptive, empirical, and theoretical analyses will be considered to understand the impact values have on other behaviors. Students will develop and explore the interaction of values and educating. Mr. Zern/Offered every year

268 SEC 1 & 2 PSYCHOEDUCATIONAL PRACTICUM AND SEMINAR/SEMINAR, FIELD PLACEMENT

Provides a two-semester placement, eight to 10 hours a week, with the pupil personnel department of a public school system. A school psychologist and/or a counselor will function as an ongoing supervisor. Activities include experience in conducting and interpreting psychoeducational assessments, obtaining social and developmental history information through home visits, and observing and participating in the development of individualized educational plans as part of the team evaluation process. Mr. Seale/Offered every year

269 THE SKILLED HELPER/LECTURE, DISCUSSION, PRACTICUM

Designed for the development of the helping professional. Emphasis is placed on dynamics of the helping relationship and basic interviewing skills. Class exercises are used to facilitate skill development. Students who are not concurrently taking a field course are placed in a human service agency one half-day per week. Mr. Seale/Offered every year

270A BECOMING AN EFFECTIVE MIDDLE SCHOOL EDUCATOR/LECTURE, DISCUSSION, FIELD EXPERIENCE SEMINARS

Takes place at the Sullivan Middle Professional Development School under the direction of Clark education faculty and the Sullivan professional development school coordinator. Grounded in an understanding of the developmental characteristics and needs of middle school-age students, it enables students to understand and develop competency in various practices—such as cooperative learning (including "complex instruction") and reciprocal teaching—that engage students of diverse backgrounds in active learning. Students develop and implement an interdisciplinary project with a Sullivan teacher team. Mr. Del Prete/Offered periodically

270B BECOMING AN EFFECTIVE SECONDARY EDUCATOR/LECTURE, DISCUSSION

Investigates the teaching process as a dynamic, complex human endeavor requiring the mastery of a variety of skills and the acquisition of a specific knowledge base. Mr. McDermott/ Offered every year

271 CULTURES OF AMERICAN SCHOOLS/LECTURE, DISCUSSION, SCHOOL VISITS

This course will examine the nature and makeup of the cultures surrounding and composing American schools from a variety of points of view in order to understand better the nature of schooling in America. A fieldwork component is required and students will read from a variety of social science sources, including science fiction and supreme court decisions. Mr. Zern/Offered every year

272 FOCUSING ON A DISCIPLINE IN THE SECONDARY SCHOOL/LECTURE, DISCUSSION, FIELD EXPERIENCE

Investigates the teaching process by direct observation of and interaction with practitioners in a secondary school. Students will acquaint themselves with a high school to acquire a sense of the community make-up. Students will observe and work with teachers in their subject area and will volunteer to aid in class, in correcting papers, in labs, in tutoring, and in preparing worksheets. Students will also teach one class. Ms. Rodrigues/Offered every year

273 SCIENCE AND SOCIETY

Deals with the construction of knowledge and authority in the physical and biological sciences. Processes of change in science are studied, how science is situated in history, the mutual influences between science and culture, and characteristic forms of thinking and practice in different branches of science (primarily physics and biology), as well as how these compare to other human endeavors. Themes from the philosophy, history, and the sociology of science will be integrated, as well as science and technology studies. The nature of "scientific literacy" and issues germane to the teaching and learning of science in schools will be studied. Mr. Blatt/Offered periodically

278A PRACTICUM: MIDDLE SCHOOL TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional development school. Students will be supervised by education faculty and/or professional development school teachers. Mr. Del Prete/Offered every year

278B SEMINAR: MIDDLE SCHOOL TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work which meets Massachusets curriculum and teaching guidelines. Mr. Del Prete/Offered every year

279 PRACTICUM: SECONDARY EDUCATION

The culminating experience for the secondary provisional certification candidate. Students complete at least 300 hours of fieldwork with corresponding seminars and conferences. Mr. Zern/Offered every semester

281 THE EARLY CHILDHOOD EDUCATOR: THEORY AND PRACTICE/SEMINAR, FIELD PLACEMENT

Introduces students to early childhood education. Each student spends six hours a week in a field placement and attends a weekly two-hour seminar. Day-care centers, nursery schools, and kindergartens are considered field sites. Addresses the nature of the developing child from infancy to age eight, the early childhood curriculum, the role of the teacher, and the effects of family and society on the learning child. Ms. Myers/Offered every year

Ways of Knowing Courses

Education and liberal arts faculty at Clark sponsor a set of interrelated courses organized around the theme "Ways of Knowing." Each course in the series deals with the construction of knowledge in individual development, in academic disciplines, in schools, and in the society at large. Each course also focuses on a few fundamental themes or "big ideas" in the area, giving students a good grasp of what an important piece of "content" looks like in each domain. Courses look at leading ideas through different perspectives, including: the nature of knowledge in the area; the historical development of this knowledge; social and cultural ramifications; ways of working, thinking and using language in the area; comparison to other ways of knowing; and ways of learning and teaching in the area. Each course involves traditional in-classroom work, as well as observation, activities, and research in the field, either in classrooms or other learning settings. Co-taught by faculty from a variety of areas, as well as by master teachers from the Clark-Worcester Public Schools Professional Development School Collaborative.

282 WAYS OF KNOWING IN THE ARTS/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

283 WAYS OF KNOWING IN THE SOCIAL SCIENCES/ LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

284 WAYS OF KNOWING IN THE HUMANITIES/ LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

286 WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

287WAYS OF KNOWING IN MATHEMATICS/ LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

288A PRACTICUM: ELEMENTARY TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional development school. Students will be supervised by education faculty and/or professional development school teachers. Staff/Offered every year

288B SEMINAR: ELEMENTARY TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice and deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work which meets Massachusetts curriculum and teaching guidelines.
Staff/Offered every year

289 PRACTICUM IN EARLY CHILDHOOD EDUCATION

Provides an intensive experience in the early years (N-K) in the Worcester area. A 150-hour, supervised practicum, including theoretical course work, seminars, and conferences. The practicum includes a periodic seminar.
Staff/Offered periodically

299 SEC. 1 DIRECTED READINGS — UNDERGRADUATE

Independent study for qualified students on a selected topic. Permission of instructor required. Offered for variable credit. Staff/ Offered every year

299 SEC. 2 DIRECTED RESEARCH — UNDERGRADUATE

Staff/Offered every year

299 SEC. 4 FIELD PROJECT — UNDERGRADUATE

Provides individualized and extended experiences in a wide variety of educational and human service agencies and institutions. Supervision is provided by the University and field agency personnel. Combines related seminars, conferences, and readings as a basis for critical analysis of the experiences within the context of applied theory and practice. Offered for variable credit. Staff/Offered every year

304 TEACHING AS RESEARCH SEMINAR I

Brings together urban school teachers (at the elementary, middle, and secondary level) with graduate students and faculty involved in university-based educational research. Focuses on qualitative, sociolinguistic research in classrooms, emphasizing the study of talk and texts as a vehicle for: better understanding students' learning, developing systematic techniques for describing and critiquing classroom activities, and supporting effective learning among a socioculturally diverse population of students. Participants meet in small, facilitated groups to carry out qualitative research in urban classrooms and develop forums through which their work can be disseminated to a wider community of teachers and researchers. Staff/Offered every year

305 TEACHING AS RESEARCH SEMINAR II

See EDUC 304.

306 CREATING LITERACY ENVIRONMENTS IN ELEMENTARY SCHOOLS/SEMINAR

Reviews recent studies reporting efforts to establish classrooms with varied opportunities for children to use language and literacy. Implications of this research for instruction are considered, and classroom practice is examined. Teams of students (e.g., a classroom teacher and a full-time graduate student, or two classroom teachers) identify and examine issues related to language and literacy use in classroom practice. Some students try novel methods and examine the effects of these innovations. Staff/Offered periodically

311 TEACHING AND LEARNING/ SEMINAR, DISCUSSION

Challenges the theory that there is one best way of understanding, that students must learn according to that one way, and that their capacity to learn ought to be judged accordingly. Explores many adequate pathways for understanding information and emphasizes that teachers who acknowledge and support different pathways help make learning more accessible for students. This premise and its implications for teaching, curriculum, assessment, the formation of learning communities for diverse groups of students, and the role of the teacher in enabling students to actively construct knowledge is explored. Mr. Del Prete/Offered every year

313 STUDIES IN MIDDLE SCHOOL TEACHING AND CURRICULUM/SEMINAR, DISCUSSION

Mr. Del Prete/Offered periodically

314 LITERATURE FOR CHILDREN AND YOUNG ADULTS/SEMINAR, DISCUSSION

Studies books written for children from preschool through middle school, critically evaluating them for artistic and literary merit. Based on reading across a variety of genres, students will explore topics such as censorship, ways of responding to literature, integrating reading and writing, and methods for incorporating trade books across the curriculum. Ms. Reddy/Offered periodically

324 BUILDING CONCEPTUAL BRIDGES/LECTURE, SEMINAR

Ms. Griffin/Offered periodically

325 RECENT THEORETICAL ADVANCES IN INTELLECTUAL DEVELOPMENT AND THEIR IMPLICATIONS FOR EDUCATION: A CASE STUDY FROM THE DOMAIN OF MATHEMATICS/LECTURE, SEMINAR

Studies contemporary theories in the field of intellectual development, their application to the domain of mathematical reasoning, and the general intellectual tradition (empiricist, rationalist, sociohistoric) and interpretive frameworks within which this work has been conducted. The relevance of this work for understanding education in the U.S. today, and in suggesting directions for its improvement, will also be discussed. Ms. Griffin/Offered periodically

327 CULTURE, LANGUAGE, AND EDUCATION

Graduate-level course dealing with theories and practices relevant to teaching and learning within a sociocultural perspective. Questions about language and cognition, multicultural and social diversity in the classroom, curricular and pedagogical theories and practices, language and literacy development, bilingual education, access and equity, learning across the life span, and the politics of education are discussed. In all areas, analysis of language and communication is used as a key tool for critical understanding. Staff/Offered every year

335 ETHNOGRAPHY IN URBAN EDUCATIONAL AND COMMUNITY SETTINGS

An introduction to ethnography and qualitative research methods—at both a theoretical and applied level. Students are introduced to the epistemological and sociohistorical underpinnings of qualitative methods, with emphasis on work appropriate for the study of urban settings. Students also carry out their own ethnographic studies, involving them in the practical work of negotiating entry into the field, data collection, and analysis. In providing methodological tools for ethnographic research, there is an emphasis on the study of discourse (talk and text) in these settings, as the visible nexus of social, cognitive, and institutional forces. Graduate seminar. Requires approval of the instructor. Ms. Michaels/Offered periodically

341 DISCOURSE ANALYSIS

Mr. Gee/Offered periodically

343 ANALYSIS OF THE RESEARCH PROCESS/ LECTURE, DISCUSSION

Focuses on understanding the structure and intent of a research report. Careful analysis of existing educational research is explored. Sources are considered in terms of particular elements in their overall structure, including hypothesis formation, operationalization of major terms, research design, etc. Mr. Zern/ Offered periodically

348 STATISTICS IN EDUCATION/ LECTURE, DISCUSSION

Mr. Zern/Offered periodically

352 YOUNG CHILDREN AND THE ARTS

See EDUC 252.

360 LITERACY DEVELOPMENT/LECTURE, DISCUSSION, SEMINAR

See EDUC 260.

362 MATH AND/OR EMOTION RESEARCH/SEMINAR

Ms. Griffin/Offered periodically

363 COGNITION AND INSTRUCTION/SEMINAR

Students will investigate the conceptual networks children construct for mathematical concepts, the instructional principles that underlie effective instruction, and the variety of methods that can be used to assess children's learning and development. Each student will conduct an independent research study on a topic of interest. Ms. Griffin/Offered periodically

364 KNOWLEDGE, DEVELOPMENT & INSTRUCTION/LECTURE, DISCUSSION, CLASS EXERCISES

See EDUC 264.

367 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR I (ELEMENTARY)

367 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR I (MIDDLE SCHOOL)

367 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR I (SECONDARY)

Integrates at least 200 hours of focused field work with group professional development activities such as "rounds" and seminar discussion. Students will be mentored by education faculty and/or professional development school teachers as they broaden and deepen their understanding of particular approaches to curriculum (consistent with local, state, and national curriculum frameworks) and develop expertise in teaching practices (e.g., fostering and assessing literacy development) that engage groups of children, including children with special needs, in active and developmentally appropriate learning. This experience promotes students' capacity to build and participate in a professional learning community reflecting on teaching, children's learning, schooling, and education. For master's students seeking standard teaching certification. Mr. Del Prete/ Offered every year

368 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR II (ELEMENTARY)

368 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR II (MIDDLE)

368 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR II (SECONDARY)

Integrates at least 350 hours of fieldwork with group professional development activities such as "rounds," seminar discussion, and teacher research. Students will be mentored by education faculty and/or professional development school teachers as they develop their teaching practice and understanding of children's learning. Particular emphasis will be placed on ways to develop and support children as active thinkers, on providing multiple paths of learning for children in keeping with diverse needs and ways of knowing, and on creating and sustaining a responsive and responsible learning community. Students will frame and conduct a teacher research project to build understanding of some aspect of the teaching-learning process. For master's students seeking standard certification. Mr. Del Prete/Offered every year

370A BECOMING AN EFFECTIVE MIDDLE SCHOOL EDUCATOR/LECTURE, DISCUSSION

See EDUC 270A.

370B BECOMING AN EFFECTIVE SECONDARY EDUCATOR/LECTURE, DISCUSSION

See EDUC 270A.

371 CULTURES OF AMERICAN SCHOOLS/LECTURE, DISCUSSION, SCHOOL VISITS
See EDUC 271.

372 FOCUSING ON A DISCIPLINE IN THE SECONDARY SCHOOL/LECTURE, DISCUSSION, FIELD EXPERIENCE
See EDUC 272.

373 SCIENCE AND SOCIETY
See EDUC 273.

377 FACILITATING TEACHER RESEARCH: ETHNOGRAPHIC AND SOCIOLINGUISTIC METHODS
Provides theoretical, methodological and applied research training to classroom teachers and graduate student/researchers interested in facilitating teacher research. Readings will include text: 1) about teacher research; 2) by teacher researchers; 3) about theoretical and empirical work on group discussion and the social formation of mind. In addition, participants will be involved in ongoing data collection and analysis of existing teacher research groups. Thus the forum will develop practical skills in group leadership as well as research skills in documenting and analyzing teacher research. This is an advanced seminar for people who have already participated in teacher research and/or facilitating teacher research groups. Permission of the instructor is required. Ms. Michaels/Offered periodically

378A PRACTICUM: MIDDLE SCHOOL TEACHING/LEARNING
Involves at least 300 hours of teaching/learning experience at a professional development school. Students will be supervised by education faculty and/or professional development school teachers. Mr. Del Prete/Offered every year

378B SEMINAR: MIDDLE SCHOOL TEACHING/LEARNING
The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year.

379 PRACTICUM: SECONDARY EDUCATION
See EDUC 279. Worth 2 units. Mr. Zern/ Offered every semester

381 HUMANITIES SEMINAR: LEARNING AND KNOWING/LECTURE, DISCUSSION
An interdisciplinary study of the variety of ways we learn and know. The focus is a consideration of the various and often conflicting views of the ideal of the educated person. Mr. Overvold/Offered every year with COPACE

382 WAYS OF KNOWING IN THE ARTS
See EDUC 282.

383 WAYS OF KNOWING IN THE SOCIAL SCIENCES
See EDUC 283.

384 WAYS OF KNOWING IN THE HUMANITIES
See EDUC 284.

386 WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES
See EDUC 286.

387 WAYS OF KNOWING IN MATHEMATICS
See EDUC 287.

388A GRADUATE PRACTICUM: ELEMENTARY TEACHING/LEARNING
See EDUC 288A.

388B GRADUATE SEMINAR: ELEMENTARY TEACHING/LEARNING
See EDUC 288B.

391 THESIS RESEARCH
Individual research related to the doctoral dissertation. Students meet with members of their dissertation committee for assistance with their dissertation study. Advising conferences are scheduled as needed by the individual student with committee members. The chair of the dissertation committee coordinates the advising process. Offered for variable credit to be determined by the dissertation chair. Staff/Offered every year

399 SEC. 1 DIRECTED READINGS — GRADUATE
Independent critical analysis of literature related to individual research. Offered for variable credit. Staff/Offered every year

399 SEC. 2 DIRECTED RESEARCH — GRADUATE
Individual research with direction from an instructor. Offered for variable credit. Staff/Offered every year

ENGINEERING

Program Committee

Charles C. Agosta, Ph.D., *committee chair: physics*
Lee Rudolph, Ph.D.: *mathematics, computer science*
Wen-Yang Wen, Ph.D.: *chemistry*

The Undergraduate 3/2 Engineering Program

The 3/2 engineering program at Clark University is a five-year program offered in conjunction with several affiliated schools. Currently these schools are Columbia University, Washington University, and Worcester Polytechnic Institute. Students enrolled in this program complete three years in residence at Clark followed by two additional years at one of the engineering schools. Students completing the program receive a B.A. degree from Clark and a B.S. degree in engineering from the affiliated school.

At Clark, students major in a field that strongly overlaps the entrance requirements for the engineering school. Appropriate majors include chemistry, computer science, environmental science and policy, mathematics, physics, and a self-designed liberal-arts/engineering major. At the engineering school, students may major in any of the fields they offer. In addition to the traditional engineering fields taught at all schools, unique programs such as engineering and public policy, biomedical engineering, system science and engineering, and fire protection engineering are also available. Please consult the program chair for further information.

While the program is open to all Clark students, the required curriculum must be started during the first year of study to permit the timely completion of all requirements. Those students whose high school background (as determined by placement examinations) has not prepared them to enter calculus (Mathematics 120) and composition (English 020) during their first semester must attend summer school to complete the requirements on time. All students intending to pursue the program are required to notify the program chair of their intent at the beginning of their first year and to choose their courses each semester in consultation with committee members.

Students are encouraged to seek a major advisor who is familiar with the program and to seek the advice of members of the 3/2 Engineering Committee. Sample curricula for appropriate majors can be obtained from the committee chair. Students intending a self-designed liberal arts/engineering major may wish to use the 3/2 Engineering Committee as their major advisory committee.

Requirements

In addition to the requirements of the Program of Liberal Studies and of their major at Clark (indicated elsewhere in this catalog), students must meet the entrance requirements of the engineering school. These requirements, which are essentially the same for all schools, are indicated in the following chart with the equivalent Clark course. Detailed questions concerning individual schools can be discussed with committee members.

The additional Clark requirements for the liberal arts major and for the Program of Liberal Studies must be met concurrently with the above requirements. Several majors require additional summer school work at Clark or advanced placement standing to complete all requirements within the three-year period in residence at Clark. Students who complete a full year of study at the engineering school and who have completed all of Clark's requirements are eligible for the B.A. at the end of the fourth year of study.

Enrollment at the Engineering School

Students submit a formal application for admission to the engineering school through the 3/2 Engineering Committee during their junior year. Students receiving a positive endorsement from the committee normally can expect admission for enrollment as juniors at the engineering school in the following September. Application for financial aid is made at the same time, and those students receiving financial aid can expect to be supported at levels that are generally consistent with the level of Clark's support during the first three years. However, only Washington University awards financial aid to foreign students, who must rely on other sources of funds while at Columbia or WPI.

Students intending to enroll at WPI should apply as sophomores and may enroll in some engineering courses during their second or third year while still at Clark. Washington University encourages prospective students to enroll in one of their intensive January courses between Clark's first and second semesters.

ENGLISH

Department Faculty

Serena S. Hilsinger, Ph.D., *chair: modernist literature, women writers*
Charles S. Blinderman, Ph.D.: *science and literature, Victorian literature, etymology*
John J. Conron, Ph.D.: *American literature, American landscape, American culture, fine arts*
James P. Elliott, Ph.D.: *American literature, literary theory, textual editing*
SunHee Kim Gertz, Ph.D.: *Chaucer, medieval literature, literary theory*
Fern L. Johnson, Ph.D.: *sociolinguistics, feminist linguistics, communication and culture*
Winston Napier, Ph.D.: *African American literature, critical theory*
Heather Roberts, Ph.D.: *American literature, popular culture, gender studies*
Leone Scanlon, Ph.D., *director of writing center: composition*
Stanley Sultan, Ph.D.: *modernist literature, literary theory, Anglo-Irish literature*
Virginia M. Vaughan, Ph.D.: *Shakespeare, Renaissance drama, Renaissance poetry and prose*

Adjunct Faculty

William Ferguson, Ph.D., *associate professor of Spanish*
Bernard Kaplan, Ph.D., *professor emeritus of psychology*

Part-Time Faculty

Louis Bastien, Ph.D.
E. Jeanne Braham, Ph.D.
M. Elizabeth Couvares, M.Ed.
William G. Tapply, M.A.T.
Lucilia Valerio, Ph.D.

Emeriti

William H. Carter Jr., Ph.D.
Jessie C. Cunningham, Ph.D.

Undergraduate Program

The program is designed to meet the needs and interests of nonmajors as well as English majors and minors. We aim to assist all students in developing skills in close reading, critical thinking, and effective writing, as well as in acquiring knowledge and experience valuable to any vocation. The program encourages the development of a sense of cultural history, a sensitivity to literary values, and a first-hand knowledge of important authors, works, and periods of literature in English.

During the first year, the prospective English major may wish to take a two-semester historical sequence. These include English Poetry (110-111); English Fiction (131-132); Fiction by Women Writers (133-134); Major American Writers (180-181); and African-American Literature (182-183). In the sophomore year, English majors normally continue their work in these historical overviews.

Also during this year, the student selects— in consultation with an advisor and other appropriate members of the staff— a suitable area of specialization. An area of specialization, a required part of the English major, permits each student to choose from a variety of recommended courses, both inside and outside the English Department, that are related to the particular periods, themes, or activities appropriate to the student's special interests. The department encourages extensive consultation between majors and their advisors.

Some courses fulfill more than one requirement and some may be taken at Assumption College and the College of the Holy Cross through an arrangement with the Worcester Consortium for Higher Education. For those interested in studying abroad, contact the Office of Study Abroad programs regarding our partner program at the University of East Anglia.

The English Department participates in Clark's Higgins School of Humanities, encouraging students to enjoy the support and benefit of the school.

Summary Program For English Majors

Nonrequired Preparatory Courses include:

IDND 018 Expository Writing/Workshop
019 The Essay: Reading and Writing/ Workshop
020 Introduction to Literature and Composition/Discussion

General Requirements:

A. One of the following poetry courses:
109 Anatomy of Poetry (first-year seminar)
110 English Poetry I
184 American Poetry

B. Two of the following three historical groupings of courses, which must be taken before the senior year:
110-111 English Poetry I & II; or 110-184 English Poetry I and American Poetry
131-132 English Fiction; or 133 Fiction by Women Writers, 1688-1899, and 134 Modern Fiction by Women Writers
180-181 Major American Writers
182-83 African-American Literature

C. Period Requirements:
To develop greater historical perspective and awareness of the range and variety of literature written in English, all majors must take at least:

1.Two full courses or seminars dealing with English literature written before 1700. (One of these courses may be a 100-level, i.e.: 120 Introduction to Shakespeare; 111 English Poetry II; 150 Medieval Literature.) The 200-level courses fulfilling this requirement include: 250 Medieval Literature; 251 Chaucer; 253 Advanced Studies in Shakespeare; 254 East Meets West-Still Spaces; 255 Studies in the Renaissance; 296 East Meets West-Women Mirrored ; and 294 History of the English Language.

2.Two full courses or seminars dealing with English literature written between 1700 and 1900. (One of these courses may be 100-level, i.e.: 131 or 132 English Fiction; 133 Fiction by Women Writers; 180-181 Major American Writers; 182 African-American Literature I). The 200-level courses fulfilling this requirement include: 260 Special Topics in 18th-Century Literature; 263 British Romantic Literature; 265-266 Victorian Literature I and II; 267 Darwinism in Literature; 280 Early American Novel; 281 American Literary Renaissance; 283 Visions of Representation, 1860-1920; 282 Studies in 19th-Century American Literature; 288 Art of the City, Paris and New York.

D. One 200-level seminar in the theory and practice of criticism from the following: 240 20th-Century Critical Methods; 241 Mythopoetic Mode; 242 Feminist Literary Theory; 248 Contemporary Literary Theory; 249 Signs and Crossroads: Semiotic Theory and Practice; 281 American Literary Renaissance; 340 Introduction to Graduate Study in English; Comparative Literature 251, Seminar in Literary Criticism.

E. During the sophomore year, in consultation with an advisor, the English major selects an area of specialization. Majors must take seven courses in their chosen area of specialization. Descriptions of areas of specialization with lists of required and recommended courses are available from the department. Areas of specialization include literature written before 1700, 18th and 19th-Century literature, and 20th-century literature. The department also offers areas of specialization in communication studies, education, and women's studies. Students wishing to double major may make the second major the basis for their area of specialization. With at least two members of the department faculty, English majors may design their own areas of specialization.

F. Every major's program must include at least four courses at the 200-level in English, in addition to the required seminar in criticism ("C" above). A student may count any of the courses listed under Comparative Literature toward the English major. In all cases, such electives must be approved by the student's advisor in the English Department as being related to the student's overall program of English studies. The 200-level courses of the Comparative Literature Program—such as Comparative Literature 230, 240, and 251—are especially recommended.

Requirements for an English Minor

A minor, in contrast to an area of specialization, provides a student majoring in another department with a general background in English literature, as well as skills in critical reading and writing. Students who wish a minor in English must take at least six English courses, not including English 20 Introduction to Literature and Composition. These courses must be selected according to the following guidelines:

1. At least one course in poetry.
2. One historical survey (two courses) from the following:
   English 131 and 132: English Fiction
   English 133 and 134: Fiction by Women Writers
   and Modern Fiction by Women Writers
   English 180 and 181: Major American Writers
   English 182 and 183: African-American Literature
3. One seminar in criticism from the following:
   English 240: 20th-Century Critical Methods
   English 241: Mythopoetic Mode
   English 242: Feminist Literary Theory
   English 248: Contemporary Literary Theory
   English 249: Signs and Crossroads: Semiotic Theory and Practice
   English 281: American Literary Renaissance
   English 340: Introduction to Graduate Study in English
4. At least two other English courses, one of which must be a 200-level seminar.

Honors Program

Students who wish to take honors in English should identify an area of interest, choose an appropriate honors advisor, and apply to the department chair before the end of the junior year. See English 299 Sec. 8, Honors in English, for details.

Directed Research Opportunities

During their junior and senior years, English majors are encouraged to engage in research. The research may be funded by a grant, undertaken for course credit, or represent a special project. Interested students should contact their advisors.

Internship Opportunities

In cooperation with the University's internship office, the English department administers an internship program for juniors and seniors. Internships are available both in university offices and beyond the campus—at newspapers, news departments of radio and television stations, periodical and book publishers, and communication departments.

Health Professions

In an effort to enhance student's opportunities for entrance into medical, dental, and veterinary schools, the Premedical and Predental Advisory Committee has made a special arrangement with the English department. Guidelines have been designed for those students interested in medicine and other health professions to major in English while meeting the specific requirements of medical schools. Advisors are Charles Blinderman, SunHee Kim Gertz, and the chair.

Study Abroad

The English department has a special arrangement with the University of East Anglia in England. Information is available at Clark University's Office of Study Abroad Programs.

Graduate Program

The program leading to the master of arts degree in English encourages both innovative, individually designed programs of study and traditional study in literature. The controlled size of the program fosters an atmosphere of intensive intellectual exchange among faculty and students. Teaching assistantships (half-time teaching and half-time study) with tuition remission plus stipends and full- and part-time tuition remission scholarships are available on a competitive basis. For the master of arts, the student must satisfactorily complete at least eight upper-level courses or seminars, which include 340 Introduction to Graduate Study, and 397 Master's Thesis. Students are also required to register for and participate in 390 Departmental Colloquium (no course credit), where they will present working drafts on some aspect of their thesis topics. In addition to completion of the master's thesis (397), the student must pass a final oral examination.

Writing Program

Leone Scanlon, Ph.D.: *director*

Several part-time staff, carefully chosen for their teaching expertise and experience, also teach each semester in the writing program.

Writing courses, limited in size to assure attention to each student, are listed as "Interdepartmental/Nondepartmental (IDND)" because the teaching of writing at Clark is considered the responsibility of the entire faculty, not of any one department. Verbal expression courses are listed under various departments.

IDND 018 Expository Writing/Workshop

Centered on student writing, this course teaches the writing process, emphasizing revision. Assignments concern the study of language in such fields as advertising, journalism, and politics. Students write essays, informal exercises, and a short investigative paper. Course required of some students. Staff/Offered every semester

IDND 162 Workshop for Writing Assistants

Limited to, and required of, students assisting in verbal expression courses, this workshop focuses on how to facilitate writing groups, diagnose writing problems, and critique papers. Ms. Scanlon/Offered every semester

Department Courses

019 The Essay: Reading and Writing/Workshop

Students read and discuss contemporary essays and some case studies of essay writing. To improve their style and rhetorical competence, students are engaged intensively in writing processes. Meets the verbal expression requirement. Ms. Scanlon/Offered every year

020 Introduction to Literature and Composition/Discussion

Students read and write about basic elements of poetry, fiction, and drama. Small classes and limited reading lists help establish an atmosphere conducive to significant class discussion; emphasis is placed on writing effectively about literature. Meets the verbal expression requirement and is strongly recommended for prospective English majors. No student may take more than one section of English 020. Staff/Offered every semester

101 Communication and Culture/Lecture, Discussion

Examines how communication creates and represents social orders and cultural identities. Emphasis is on critical analysis of communication in contemporary society. Subjects include culture-based metaphor, cultural discourses, advertising, print media, and television.
Ms. Johnson/Offered every year

105 News Writing (formerly Writing for Newspapers)/Workshop

Covers the basics of news writing, from reporting an event to writing an obituary. Students learn how to collect information, conduct interviews, and organize writing into crisp news copy. Class work includes weekly deadline writing assignments. Homework: weekly writing exercises based on textbook examples and field assignments, as well as readings from texts and daily newspapers. Prerequisites: verbal expression course. First-year students by permission. Staff/Offered every year

106 Creative Writing: Fiction/Workshop

Cultivates and guides student work chiefly in the short story, but students may also work with personal memoirs. The art of fiction, published literary works, and student manuscripts are discussed. Not open to first-year students. Prerequisite: 020 Introduction to Literature and Composition or any higher literature course taught in any department, or permission of the instructor. Graded on a credit/no credit basis. Ms. Braham/Offered every year

107 CREATIVE WRITING: POETRY/WORKSHOP

Focuses on prosody and other elements of poetry, and on the writing of narrative, lyric, and dramatic poems. Not open to first-year students. Prerequisite: 020, Introduction to Literature and Composition or any higher literature course taught in any department or permission of the instructor. Graded on a credit/no credit basis. Ms. Braham/Offered every year

110 ENGLISH POETRY I/LECTURE, DISCUSSION

Focuses on the development of the most important forms, themes, and movements in English poetry. This course, required for the English major, emphasizes intensive study and discussion of individual poems. It includes a series of essays on assigned topics. Some sections of this course fulfill the verbal expression requirement. Strongly recommended for English majors in the first or second year; seniors by permission. Ms. Braham, Ms. Hilsinger, Mr. Sultan/ Offered every semester

111 ENGLISH POETRY II/LECTURE, DISCUSSION

Sequel to English Poetry I. Poetry by Yeats, Dickinson, Wordsworth, Milton, and a group of Renaissance lyric poets is studied in that order (reverse chronology). Relevant issues in the contexts and art of poetry are considered. Prerequisite: a poetry course. Mr. Sultan/ Offered every year

120 INTRODUCTION TO SHAKESPEARE/LECTURE, DISCUSSION

Designed for any student who wants an introduction to Shakespeare. Seven major plays are read and discussed in detail with an emphasis on performance. Prerequisite: verbal expression course. Ms. Vaughan/Offered every year

131 ENGLISH FICTION I/LECTURE, DISCUSSION

The sequence 131-132 explores British narrative and fictive modes from the 18th and 19th centuries. Writers studied in this course include Bunyan, Defoe, Swift, Richardson, Fielding, Johnson, Sterne, and Austen. Close attention is paid to texts, their intellectual, historical, and biographical contexts, and to recent critical approaches to prose fiction. Prerequisite: verbal expression course. Staff/Offered every other year

132 ENGLISH FICTION II/LECTURE, DISCUSSION

Continues the exploration of British narrative and fictive modes. Writers studied include Mary Shelley, Thackeray, Dickens, George Eliot, Hardy, and the Brontes. Close attention is paid to texts, their intellectual, historical, and biographical contexts, and recent critical approaches to prose fiction. Prerequisite: verbal expression course. Staff/Offered every other year

133 FICTION BY WOMEN WRITERS, 1688-1899/LECTURE, DISCUSSION

Authors studied include Behn, Burney, Austen, Brontë, Eliot, Gilman, and Chopin. The emphasis in this course is upon these women authors', and their characters' reactions to, and interactions with, the atmospheres and landscapes of their respective ages. Prerequisite: verbal expression course. Ms. Hilsinger/Offered every other year

134 MODERN FICTION BY WOMEN WRITERS/LECTURE, DISCUSSION

Studies works written in the 20th century that provide portraits of women in all stages and conditions of life, rendered in a broad spectrum of fictional techniques. Authors studied include Stein, Mansfield, Woolf, Bowen, Hurston, Porter, Sarton, and Naylor. Prerequisite: verbal expression course. Ms. Hilsinger/Offered every other year

142 PSYCHOLOGY AS A HUMAN SCIENCE/DISCUSSION

See Psychology 155. Mr. Kaplan/Offered periodically

150 INTRODUCTION TO MEDIEVAL LITERATURE/LECTURE, DISCUSSION

Introduces western European medieval literature, touching on classical roots and contemporary counterparts in the process. Themes vary each year and include: rhetoric and romance; the once and future king; and Ovid in the Middle Ages. Students may take the course more than once, if a different theme is studied. Ms. Gertz/Offered every year

180 MAJOR AMERICAN WRITERS/LECTURE, DISCUSSION

The sequence 180-181 takes a historical approach to American literature from Puritanism to the present. Concentrates on early American literature, circa 1620-1860. Texts by Taylor, Edwards, Rowlandson, Franklin, Rowson, Douglass, Emerson, Thoreau, Hawthorne, Melville, and others are read. Prerequisite: verbal expression course. Ms. Roberts/Offered every year

181 MAJOR AMERICAN WRITERS/LECTURE, DISCUSSION

Concentrates on the evolution of American literature from circa 1860 to the present. Texts by such writers as Whitman, Twain, Howells, Dickinson, Jewett, Crane, James, Frost, Eliot, Faulkner, and Hemingway are read. Prerequisite: verbal expression course. Mr. Conron, Mr. Elliott/Offered every year

182 AFRICAN-AMERICAN LITERATURE I/LECTURE, DISCUSSION

Addresses the major periods and principal authors of the African-American literary canon from the 18th and 19th centuries. Students examine works of such writers as Olaudah Equiano, Phillis Wheatley, Frank Webb, Harriet Jacobs, and Frances Harper. Students are expected to gain a chronological, as well as a culturally contextual, understanding of African American literature. An analysis of the dominant themes, moods and aesthetic assumptions often indicative of black American literature is stressed. Prerequisite: verbal expression course. Mr. Napier/Offered every year

183 AFRICAN-AMERICAN LITERATURE II/LECTURE, DISCUSSION

Explores the aesthetic modes configuring the evolution of African-American literature in the 20th century, especially the novel. Writers studied include Toomer, Johnson, Hughes, Hurston, Wright, Ellison, Baraka, Morrison, Bambara and Naylor. Mr. Napier/Offered every year

184 AMERICAN POETRY/DISCUSSION

Concentrates on the differing experiences of the natural environment defined by narrative, incantational, and meditative poetry. The poetry studied includes the Navajo Night Chant and the work of Gary Snyder, Derek Walcott, Mary Oliver, Pat Mora, and others. The course teaches and requires knowledge of the art of the image, the image sequence and the music of 20th-century American poetry. Mr. Conron/Offered every other year

191 LANGUAGE DIVERSITY IN THE U.S./LECTURE, DISCUSSION

Using a cultural perspective on language, addresses varieties of language use in the U.S. Topics include demographics in sociolinguistic perspective; the history of American English; language and culture of African Americans, Asian Americans, Hispanic Americans; gender patterns in language; bilingualism and multilingualism in the U.S.; and the policy implications of language diversity. Ms. Johnson/ Offered every year

192 ETYMOLOGY/LECTURE, DISCUSSION

Increases students' vocabularies by up to 1,000 words. Students study the history of English from its Indo-European source to contemporary slang and analyze the ways words are adopted and created. After the historical study, the course focuses on the vocabularies of disciplines, such as religion, philosophy, government, art, and biology. Mr. Blinderman/Offered every year

196 ORAL ADVOCACY/LECTURE, WORKSHOP

Centers on oral presentation of controversial issues and response to rhetorical dilemmas. Topics include: rhetorical situations and audience analysis; forms of argument in persuasive speaking; development of arguments with evidence; and ethical communication practices. Students prepare three major speeches and complete a number of exercises. Ms. Johnson/ Offered every year

202 FEATURE WRITING I/WORKSHOP (FORMERLY WRITING FOR MAGAZINES I)

Covers basic skills of writing feature articles for magazines. By analyzing a variety of magazines for style and content, students learn the process of researching and constructing a feature story, as well as freelance marketing basics. Course work includes writing and revising three magazines feature stories, in addition to completing weekly reading assignments from magazines and texts. Prerequisites: verbal expression course; not open to first-year students. Staff/Offered every year

203 FEATURE WRITING II/WORKSHOP (FORMERLY WRITING FOR MAGAZINES II)

Developing skills learned in Feature Writing I, students research and write two full-length feature stories for a local or regional audience and produce a class-written magazine. Much of the course is devoted to the art of revision; students complete three drafts of each story. Instruction is complemented by professional critiques from the editor of Worcester Magazine. Homework includes weekly reading assignments and magazine analysis. Prerequisites: Feature Writing I or permission; not open to first-year students. Staff/Offered every year

240 20TH-CENTURY CRITICAL METHODS/SEMINAR

Examines the primary movements in 20th-century European and American literary criticism and critical theory. Beginning with the Formalist School and moving through New Criticism, the Marxist School, Structuralism, the Black Arts Movement, Feminism, Deconstruction and other manifestations of poststructuralism, investigates the philosophical assumptions that have reconfigured contemporary literary studies away from mere explication toward a concern with the epistemological, cultural, and ideological groundings of the text. Mr. Napier/Offered every year

241 THE MYTHOPOETIC MODE/SEMINAR

Explores the vision and epistemology of mythopoetic literature. Works read and discussed include Shakespeare's "Henriad," Milton's "Paradise Lost," Bronte's "Wuthering Heights," Melville's "Moby Dick," and works of the modern period. Ms. Hilsinger/Offered every year

242 FEMINIST LITERARY THEORY/SEMINAR

Focuses on the canon of postmodern feminist literary theory produced by the African-American feminist/womanist school, the ecriture feminine school, the Lacanian/Freudian school, and the American generalist school. Target issues include authorial power and revisionary identities, body as text, deconstruction as feminist practice, principles of psycho-political liberation, racialized gender, and resistance to the universalizing traditions of phalloculturalism. Mr. Napier/Offered every other year

248 CONTEMPORARY LITERARY THEORY/SEMINAR

Investigates and develops several theoretical approaches to literature in the late 20th century, most often focusing on one approach and/or theorist. We may also attempt to apply the theory to several literary works. General areas of study are selected from among the following: textual criticism, new criticism, psychoanalysis/reader response, structuralism, poststructuralism, feminism, post-colonialism, postmodernism, gay and lesbian theory. Mr. Elliott/ Offered every year

249 SIGNS AND CROSSROADS: SEMIOTIC THEORY AND PRACTICE/SEMINAR

Approaches semiotic theories comparatively from historical as well as theoretical points of view and practices them in a comparative mode, drawing on literature, film, advertising, and drama. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE/SEMINAR

Emphasizes literary theory as well as literature of the Middle Ages. Attempts to achieve a sense of medieval literary culture and uses texts from Europe and Great Britain, as well as from the classical period. Texts vary. Ms. Gertz/ Offered every other year

251 CHAUCER/SEMINAR

Guides the student through "Book of the Duchess," "The House of Fame," "The Parlement of Fowls," some "Canterbury Tales," and "Troilus and Criseyde." All texts are taught in Middle English, and selections may vary. (No prior knowledge of Middle English required.) Ms. Gertz/Offered every other year

253 ADVANCED STUDIES IN SHAKESPEARE/SEMINAR

Explores recent trends in research and criticism of Shakespeare's texts. Topics and focus vary from year to year, but include feminist, new historicist, and cultural materialist interpretations, performance criticism, and theater history. Ms. Vaughan/Offered every year

254 EAST MEETS WEST—STILL SPACES: CONTEMPLATIVE PRACTICE IN THE CLASSROOM/SEMINAR

This course aims to explore and gain experience of contemplative practices as they have evolved in both European and Asian cultures. In addition to reading and writing about key texts that engage the "still space," outside the classroom, we will participate in a yoga course for seven weeks and attend two lectures. The concepts of ki (centeredness) and tao (the way) will be probed through the tools of the metaphor and the narrative. Ms. Gertz/Offered every year

255 STUDIES IN THE RENAISSANCE/SEMINAR

Explores the poets, playwrights, and prose writers who shaped the English literary Renaissance. Authors to be studied may include More, Sidney, Spenser, Marlowe, Wroth, Donne, Shakespeare, Cary, Herbert, Jonson, Middleton, and Webster. Their writings are placed within the sociopolitical context of the 16th and 17th centuries. Ms. Vaughan/Offered every other year

257 LANGUAGE AT ISSUE/SEMINAR

Centers on current language policy issues in the United States. Focuses on issues such as ebonics, language translation in the legal process, and efforts to make English the "official" language of the U.S. Each issue will be considered from the perspective of academic scholarship, media representations, legislative actions, and judicial opinions. Ms. Johnson/Offered every other year

260 SPECIAL TOPICS IN 18TH-CENTURY LITERATURE: REACTION AND REVOLUTION, 1660-1800/SEMINAR

Offers students an opportunity to explore historical and theoretical problems related to the study of English literature from 1660 to 1800. Topics change with each new seminar. Recent topics include: the background to Frankenstein, political literature of the later 18th century, and approaches to Swift. Staff/Offered periodically

263 BRITISH ROMANTIC LITERATURE/SEMINAR

Examines British Romantic literature from philosophical, social, and critical perspectives. Romantic authors such as Wordsworth, Coleridge, Byron, Keats, Mary Shelley, DeQuincey, Burns, Blake, and Byron will be studied to uncover what the Romantic sensibility is and how it relates to nature, the self, and society. Mr. Blinderman/Offered every other year

265 VICTORIAN LITERATURE/SEMINAR

Selections illustrate both Victorian and present interests in matters such as social reform, family values, equality of races, women's liberation, censorship, Jesus as savior, pop music, art-for-art's sake vs. art for the sake of moral improvement, Darwinism vs. creationism, cooperation vs. the pains and pleasures of ruthless competition, and the existence of God vs. atheism. Authors studied include Charles Darwin, Charles Dickens, Alfred Tennyson, John Stuart Mill, Charlotte Brontë, Thomas Hardy, and Oscar Wilde, and less familiar but important people such as Henry Mayhew and Harriet Taylor. Mr. Blinderman/Offered every other year

267 DARWINISM IN LITERATURE/SEMINAR

Studies Darwinism in its several dimensions: biological, philosophical, ethical, religious, political, and economic. Includes a survey of pre-Darwinian works in natural theology and speculation about evolution, focuses on the writings of the Darwinians (especially Charles

Darwin and Thomas Huxley), and reviews Social Darwinism—the survival of the fittest—in the U.S. Reading list includes essays, poems, drama, and fiction; special arrangements for viewing of films. Mr. Blinderman/Offered periodically

272 JOYCE AND LAWRENCE/ SEMINAR

Introduces the art of the two writers. Poems, short stories, and novels by both are studied. Mr. Sultan/Offered every year

274 W.B. YEATS/SEMINAR

Studies the accomplishments of Yeats. The principal concern is his poetry, but attention is given to his dramatic and other writings. Also studied are his thoughts and beliefs, and his cultural role in Ireland and the world during his time. Prerequisite: either a poetry course or permission of the instructor. Mr. Sultan/ Offered periodically

275 VIRGINIA WOOLF/SEMINAR

Involves intensive study of Virginia Woolf's major novels, short stories and poetry, and emphasizes the artistic process as well as the vision of Woolf's work; includes issues such as Woolf's feminism and critical stance. Ms. Hilsinger/Offered every other year

278 MODERN POLITICAL LITERATURE: CLASS, RACE, GENDER, ETHNICITY/SEMINAR

Covers political fiction, poetry, and plays of the past century, principally in the U.S., Great Britain, Ireland, France, Germany, Czechoslovakia, Spain, and certain African and Latin American countries. Works advocating and attacking political formulations about class, nationality, race, and sex are studied. No prior knowledge of politics or political theory is necessary. Mr. Sultan/Offered periodically

281 AMERICAN LITERARY RENAISSANCE/SEMINAR

Focuses on the turbulent decade of the 1850s. Canonized male writers—long understood as the first Americans to produce significant literature—will be read in combination with their much more popular female counterparts. By creating a dialogue between these two traditions, issues such as canonicity and the construction of gender will be discussed. Ms. Roberts/Offered every year

282 STUDIES IN 19TH-CENTURY AMERICAN LITERATURE/SEMINAR

Content and approach is determined by the instructor. Readings may be organized in various ways: by theme, genre, critical approach, or cultural contexts, for example. Contexts in the past have included canonization, Africanism, the American Dream, and literary history. The readings deal predominantly, but not exclusively, with literature written before 1900. Mr. Elliott/Offered every year

283 VISIONS OF REPRESENTATION: 1860-1920/ SEMINAR

Explores the problematic assumptions of literary representation underlying American realism through selected works of American writers. Conventional interpretations of realist writing are often challenged by issues of race, class, gender, and cultural contexts. Examines works by Twain, Howells, James, Dreiser, Jewett, Cather, Wharton, Mary Austin, Ann Petry, and others. Mr. Elliott/Offered every year

286 AMERICAN MODERNISMS/DISCUSSION

Designed as an interdisciplinary approach to some American versions of modernism in the fine arts, c. 1910-c. 1940. Ideas about modernity, as it manifests itself in space, consciousness, gender and race in the U.S. are addressed, and close analyses of painting, architecture, poetry, and prose narrative are conducted in light of these ideas. The question of how well modernism serves such constituencies as African-American and women writers is discussed. Designed for upper-level students, preferably with some experience of interdisciplinary study, including English 180-181 or courses in American history, cultural geography, painting, or screen studies. Mr. Conron/Not offered 98-99

287 SENSES OF PLACE/DISCUSSION

Concentrates on late modernist (1945-1960) and postmodernist (post-1960) prose narrative, painting, photography, and film in terms of the inhabited space and the ways of life they define. Four courses are rotated: (a) Modernist and Postmodernist New York; (b) Regions and Regionalisms: New England and the South; (c) Art of the City: Los Angeles; and (d)

Postmodernist Regionalism: The Southwest, which will be taught in 1999-2000. Upper level seminar for majors and non-majors. English 286 is advised but not required. Mr. Conron/Offered every other year

288 ART OF THE CITY: PARIS AND NEW YORK/DISCUSSION

A comparative structural and cultural analysis of two urban designs, Haussmann's Paris and Olmsted's New York; of visual representation of the two cities by French Impressionists and the American Ashcan School; and of the literary interpretation of the cities by two urban poets, Charles Baudelaire and Walt Whitman. Cultural kinships and differences between France and the U.S. are explored. Mr. Conron and Mr. Spingler/ Offered every other year

291 HARLEM RENAISSANCE/SEMINAR

Introduces the development of African-American aesthetics and literature as they evolved from roughly 1920 to 1930. The defining historical forces of the 19th century as well as those of the early 20th century are explored as auxiliary concerns for the focused examination of the major and minor figures comprising this movement. This course will also examine the Harlem Renaissance women writers and their works which, until recently, have remained largely unknown. Mr. Napier/Offered periodically

293 STUDIES IN LANDSCAPE/SEMINAR

Concentrates on various aspects of 20th-century American space in literature, painting, photography, film and actual landscapes. Texts are chosen and taught by the students. Prerequisite: English 286, 287, or by permission. Mr. Conron/Offered every other year

294 HISTORY OF THE ENGLISH LANGUAGE/SEMINAR

Examines changes in English during the Anglo-Saxon, medieval, and early modern periods. In addition to learning phonological and grammatical characteristics of the language during each period, the student examines language as a mirror of culture. Ms. Gertz/Offered periodically

295 GENDER IN LANGUAGE USE/SEMINAR

Focuses on how cultural conceptions of gender guide language use for males and females and on ways in which discourse in its cultural context constructs gender. The implications for language use of enculturation and socialization, dominance and inequality, and cultural diversity are considered. Both theory and research are covered, and students conduct their own research projects. Ms. Johnson/Offered every year

296 EAST MEETS WEST—WOMEN MIRRORED/SEMINAR

This seminar examines representations of women theoretically, literally, and historiographically. We will probe how women are presented through primary texts stemming from early modern China (17th and 18th centuries) and from mainly late medieval western Europe (12th through the 14th centuries) as well as through a variety of secondary texts and analytical methods. Ms. Gertz and Mr. Ropp/Offered periodically

299.1 DIRECTED READINGS

Offered for variable credit. Staff

299.5 SPECIAL PROJECTS

Offered for variable credit. When asking an instructor to sponsor directed readings (299.1) or a special project (299.5), the student should: 1) demonstrate competence to deal with the materials as literature and 2) present a well thought-out proposal. The student must take the initiative in selecting readings or carrying out the special project. Staff

299.8 Honors in English: Senior Year

Interested students should apply in writing to the department chair with a brief description junior year. Students usually will be granted one credit. Register in the fall semester of the senior year. The advisor and the student will agree on the project's stages. The department requires: a first draft by the first day of the spring semester and two copies of the completed thesis two weeks before the last day of spring semester classes. A second reader, chosen by the student and the advisor, participates in the final evaluation. Honors is not granted to any student who fails to meet both deadlines, although the project still qualifies for course credit and a grade. Staff

340 Introduction to Graduate Study in English/Seminar

Examines certain fundamental aspects of literary theory and considers the nature of and relationships among the three principal areas in the discipline—bibliography and textual analysis, literary history, and literary criticism. M.A. candidates not specifically exempted are required to take this course. Mr. Sultan/Offered every fall semester

342 Special Topics/Seminar

This seminar will be offered on a rotating basis by full-time faculty. For 1998-99 the topic will be "Constructions of Gender, Race, and Ethnicity in the Literature of England and the Americas." The seminar will be directed by Professor Vaughan with special sessions led by other members of the department.

390 Departmental Colloquium

Provides graduate students with guidance, expertise, and resolution for the writing of the master's thesis. The chief requirement is an oral presentation, ordinarily given in the student's final semester of coursework. Participation and registration are required; however, the colloquium does not carry course credit and is not included as one of the eight courses needed to fulfill M.A. requirements. Ms. Gertz/Offered every semester

397 Master's Thesis

Prerequisite: permission of thesis advisor. Staff

399.1 Directed Readings

Staff/Offered for variable credit

399.6 Directed Research

Staff/Offered for variable credit

ENVIRONMENTAL SCIENCE AND POLICY

Program Faculty

Halina S. Brown, Ph.D., *chair: chemistry, toxicology, risk analysis and management, environmental policy, global issues*

S. Leslie Blatt, Ph.D.: *physics, nuclear reactions, energy considerations*

Patrick Derr, Ph.D.: *philosophy, biomedical ethics, history and philosophy of science, ethical issues in risk analysis and management*

Jacque L. Emel, Ph.D.: *water resources, environmental politics, hydrology*

Robert L. Goble, Ph.D.: *physics, energy studies, atmospheric transport, risk analysis and management*

Jacqueline Geoghegan, Ph.D.: *resource economics, environmental policy, land use*

Susan Foster, Ph.D.: *ecology, evolutionary biology, population biology*

Dale Hattis, Ph.D.: *quantitative risk assessment, pharmacokinetic modeling, carcinogenesis, biomarkers, interindividual variability*

Stanley R. Herwitz, Ph.D.: *forest hydrology, watershed ecology, biogeography, geology*

Christoph Hohenemser, Ph.D. *professor emeritus: physics, technology assessment, hazard management, energy policy*

Todd P. Livdahl, Ph.D.: *ecology, population biology*

Donald Nelson, Ph.D.: *protein chemistry, environmental analysis*

Samuel J. Ratick, Ph.D.: *environmental engineering, energy and environmental systems, environment and public policy, modeling, quantitative methods*

Joseph Sarkis, Ph.D.: *operations management, environmentally conscious business practices*

Program

Environmental Science & Policy is an interdisciplinary program that emphasizes policy questions involving the environment and the use and misuse of science and technology. The goal of the program is to enable individuals to deal with technical and environmental issues in a social and political context, and to do so with an acute awareness of the short- and long-range limitations of the natural environment to respond to human interventions. The ES&P Program offers an undergraduate major and a master of arts degree. Participating faculty are drawn from a number of departments and disciplines. They have research interests in a wide range of societal problems, including environmental science and management, energy and technology policy, and assessment and control of technological hazards. Faculty interests, which are focused on both the developed and developing world, offer students the chance to participate in research. Faculty accept undergraduates and graduate students as research participants. The Environmental Science and Policy program office is located in the Sackler Sciences Center, Bio/Physics 356, (508) 793-7655.

Undergraduate Major

The degree requirements for an undergraduate major are designed to ensure that students acquire a firm foundation in natural science with considerable exposure to social science/public policy perspectives. Achieving literacy in natural science is especially important for two reasons: (1) many significant problems are accessible only with a thorough grounding in natural science, and (2) there is a significant need for managers of science, technology, and environment whose technical background is more than perfunctory. Accordingly, the requirements for the undergraduate Environmental Science and Policy major emphasize natural science and mathematics.

Requirements for the Major

The degree requirements for the major include 10 semesters of natural science and/or mathematics, two semesters of basic social science, five semesters of interdisciplinary Environmental Science and Policy courses, and a capstone seminar or project.

The 18 semester courses required of majors fall into three categories:

A. ES&P courses
- 1 introductory course
- EN 175 Science, Uncertainty and Decisions
- 3 additional ES&P courses, two of which are at 200 level
- Capstone seminar

B. Basic literacy in natural science and/or mathematics
- 6 semesters in one natural science (including two advanced courses)
- 2 semesters in a second natural science
- 1 semester of calculus
- 1 semester of statistics
- OR
- 8 semesters of a coherent program in ecological sciences combining courses in biology, physical geography, and (optionally) chemistry
- 1 semester of calculus
- 1 semester of statistics
- OR
- 6 semesters of mathematics or computer science
- 4 semesters of natural science

C. Basic literacy in social science
- 2 semesters of social science courses chosen from the fields of economics, government social geography, management, or sociolog

Introductory Course Requirement

This can be chosen from the following:
- EN 102 Introduction to Environmental Management
- ES 180 The Earth Transformed
- ES 123 Environmental Ethics
- ES 144 Energy and the Campus
- Other ES&P courses

The ES&P Courses Requirement

These can be chosen from courses offered by the core ES&P faculty as well as those offered by other departments. Courses offered by the core ES&P faculty are listed below:

EN 226 Societal Analysis and Evaluation of Environmental Hazard
EN 251 Limits of the Earth
EN 261 Decision Methods for Environmental Management and Policy
EN 282 Management of Environmental Pollutants
EN 265 Tools for Quantitative Policy Analysis
EN 240 Energy and the Environment
EN 241 Environmental Toxicology
EN 246 Cancer: Science and Society
EN 250 Technology and Environmental Assessment

The Capstone Seminar

Designed to be taken in the second semester of the senior year. Students may contribute to the Capstone seminar by integrating it with internships (experience outside the university), research participation in one of the ES&P research groups, or individual research projects designed by the student. The Capstone experience may include the presentation of an honors thesis and a poster or presentation in the Clark University Academic Spree Day event, which is held each Spring.

The Natural Science and/or Mathematics Requirement

Students can choose to focus in one of the following six disciplines to fulfill their natural science/mathematics requirement: biology, chemistry, physics, physical geography, ecology, computer science, or mathematics. Students choosing either biology, chemistry, physical geography, or physics are required to take 6 courses in the discipline of their choice, 2 courses in another discipline of natural sciences, and 2 courses in mathematics (calculus and statistics). Students choosing ecology as their area of concentration are required to take 8 courses, selected in consultation with their undergraduate advisor, from biology and physical geography. Chemistry courses may be included in the 8 selected. Students choosing mathematics or computer science as their areas of concentration are required to take 6 courses in the discipline of their choice and 4 courses in natural sciences (preferably in two different fields). In all cases, 2 advanced courses in the area of concentration are required.

The choice of an appropriate focus depends entirely on a student's inclination and program theme. The study of biology or chemistry, for example, is essential to the student concerned about pollution problems and environmental systems, whereas the study of mathematics or physics is an appropriate background for the fields of risk analysis, energy policy and technology assessment. The physical geography concentration is designed for those who want to work in the areas of resource management.

The Statistics Requirement

The following courses satisfy the statistics requirement:

GEOG 110 Computer and Quantitative Methods
BIOL 280 Biostatistics and Computer Applications
PSYCH 105 Quantitative Methods
GOVT 107 Research Methods
ECON 160 Introduction to Statistical Analysis

The Social Science Requirement

Social science courses are best drawn from such areas as economics, government, social geography, and sociology. Majors are encouraged to take more than the minimum number of social sciences, since an ideal social science component would consist of three to four courses, with at least two in a single discipline.

Declaring a Major

Clark requires all undergraduates to declare a major by the end of the second semester of the sophomore year. This is done by filling out a declaration-of-major form which is obtainable from the ES&P Program Office or the Registrar's office.

Continued Academic Advising

After becoming an ES&P major, students should continue to consult with the undergraduate advisor, who will help plan suitable courses of study. This advisor will replace the academic advisor assigned when entering Clark.

Before pre-registration, and at the beginning of each semester, the undergraduate advisor should be consulted to discuss progress and to plan for the next semester. The purpose of this systematic advising process is to help plan courses for the upcoming term, assess progress in meeting degree requirements and educational goals, and discuss whatever other issues and concerns are felt to be important.

Double Majors

Because of the emphasis placed on developing a solid scientific and/or mathematics background, the Program actively encourages double majoring in science or mathematics. In doing so, the natural science and/or mathematics requirement of the program is automatically fulfilled. This leaves a relatively small number of courses, mostly in the social sciences and ES&P, to be taken over and above departmental requirements. Several of these can be used to fulfill the university requirements for the Program of Liberal Studies as 'perspective' courses.

Double majoring with a social science department is more difficult because of the larger number of courses that must be taken to fulfill requirements with a lesser degree of overlap. Still, some students have put together successful joint programs between ES&P and departments such as economics and geography, the latter of which has separate requirements for dual or interdisciplinary majors. Double majors in humanities are feasible and have been successfully pursued, but they require careful planning.

Pursuing the ES&P Major within the Environmental School

In 1994, a new Environmental School was created within the undergraduate college at Clark University. The curriculum of the School is organized around the theme of nature-society interactions. The School attracts students with diverse talents, interests and career plans—from physics to philosophy to poetry—who are challenged by prospects of understanding the place of their chosen area of specialization (major) in relation to the fundamental question of how humans can develop and prosper while sustaining the earth for future generations. Entry to the Environmental School is open to first-year students and beginning sophomores.

For a description of the Environmental School curriculum, please consult the Student Guide for Pursuing a Major in the Environmental School. Please stop by the Environmental School Office to obtain a copy.

Participation in the Environmental School can be combined with 15 different majors, including the Environmental Science and Policy major. However, because of the overlap between the two sets of requirements, students within the Environmental School who elect Environmental Science and Policy as their major have some of their standard ES&P requirements waived.

Requirements for the ES&P major within the Environmental School

A. Complete the ES core curriculum, with a provision that ES 141 is a required course (it is the same as EN 175.)

B. The requirement for an Introductory course to ES&P is waived

C. Three ES&P courses. Two of these should be chosen from the following list:
   EN 142 Environmental Chemistry
   EN 226 Societal Analysis and Evaluation of Environmental Hazard
   EN 251 Limits of the Earth
   EN 261 Decision Methods for Environmental Management and Policy
   EN 282 Management of Environmental Pollutants
   EN 265 Tools for Quantitative Policy Analysis
   EN 240 Energy and the Environment
   EN 241 Environmental Toxicology
   EN 246 Cancer: Science and Society
   EN 250 Technology and Environmental Assessment

D. Six courses in one of the following fields: biology, chemistry, physics, physical geography, computer science, or mathematics

E. One semester in a different field of science than the 6 above

OR

If computer science or mathematics is selected, then 3 semesters of science

OR

7 courses providing a coherent program in ecology drawn from biology and physical geography and (optionally) chemistry

F. One semester of calculus and one semester of statistics

OR

If mathematics or computer science is selected, then this requirement is waived

G. Two semesters of social science chosen from the fields of economics, government, social geography, management, or sociology. The following courses in the required Environmental School curriculum also satisfy the social science requirement for ES&P:
ES 211 Forest and Wilderness: Values and Uses
ES 212 Environmental Policy and Management

H. The Capstone Seminar.

A frequently asked question is what is the difference between the curriculum of the Environmental Science and Policy major and the curriculum of the Environmental School. The difference is in the focus and mission. The ES&P major prepares students for entry- level jobs entailing data analysis and problem solving in the environmental field. All students choosing ES&P as their major enjoy sciences and have strong interests in the scientific aspects of environmental management. Many have either once contemplated majoring in either biology, chemistry, or physics, or are actually pursuing double majors.

The mission of the Environmental School is much broader. It makes room for all majors and expects its graduates to work in many types of jobs, not necessarily as environmental problem solvers. The core curriculum of the Environmental School requires a much smaller dose of quantitative analysis, natural sciences, and problem-oriented courses focusing on environmental topics. On the other hand, the School is much stronger than the ES&P major in integrating the humanities, social sciences, and natural sciences. Its key objective is to add an additional powerful component to the education in a major chosen by the student.

Research Participation

Research participation provides a unique opportunity for students to interact with faculty members at a level beyond that of the classroom setting. Most research participation projects require the equivalent of one or two semester courses of work, and often involve the student in a research group consisting of one or more faculty and graduate students.

Honors

Honors are awarded upon presentation and oral defense of an undergraduate thesis and poster, which is presented at the Clark Academic Spree Day. Students who wish to be considered for honors must have attained at least a 3.0 grade point average in ES&P-required courses by their junior year. Students are encouraged to begin work the summer following the junior year on a project that can be extended into a thesis during the senior year. To embark on an honors project, it is essential to approach an appropriate faculty member and to receive his/her agreement to serve as mentor/advisor for the project. A proposal for an honors project must be submitted to the ES&P faculty and approved in the Fall of the senior year. There are three classifications of honors: honors, high honors, highest honors.

Internships

Majors in ES&P are encouraged to strengthen their educational experience by working outside the university in paid or unpaid positions related to their studies. An internship is particularly valuable after the junior year, when a student has gained some intellectual maturity and is in a position to attempt interdisciplinary problem-solving. Another benefit of a junior-year internship is that the background gained on a particular problem help identify a thesis topic to be pursued in the senior year. The resulting combination of work experience and research productivity in the same field is an important asset for the student when entering the job market. If students wish to receive credit for an internship, it is essential that they provide a detailed written analysis of their work.

Internships are usually obtained on a case-by-case basis with the advice and assistance of the ES&P faculty or Environmental Internship Office. Students who are interested in internships should discuss the matter with their undergraduate advisor or the coodinator of the Environmental Internship Office.

The Five Year B.A./M.A. Program

The five year B.A./M.A. program is offered to provide more intensive study of ES&P in combination with a liberal arts B.A. degree. Majors in any undergraduate field are accepted for the M.A. degree, although preparation for the program is easier for ES&P majors. ES&P majors can be admitted into the five-year program without any additional requirements. Majors in other disciplines must supplement their courses with a number of preparatory courses in ES&P.

Beginning in August 1994, new and current Clark ES&P undergraduates became eligible for full- or reduced-tuition fellowships during a fifth year of study. Please refer to the Guide to Accelerated Degree Programs.

A request for admission to the combined B.A./M.A. program is made to the ES&P program graduate advisor during the junior year, and will be granted in the senior year on presentation of an acceptable program of undergraduate study. Full tuition remission requires a cumulative average of 3.25 or better. Students admitted to the B.A./M.A. Program take two core Graduate Courses in their senior year. During the fifth year, their requirement for completion of the Master's Degree consists of 8 additional credits.

For details on the ES&P curriculum, admission requirements, and important dates and forms for admission to the fifth-year program, please call Marcia V. Szugda, Administrative Assistant, at 793-7655. These forms have to be filled out during the junior year for admission into the fifth-year program.

The master's degree in ES&P is not primarily an extension of liberal arts at the undergraduate level. Rather, it is an effort to train individuals who can go directly from Clark into problem-solving jobs in the areas of environmental policy or technology assessment and risk management. In this sense, an ES&P graduate degree is a preparation for a profession.

The M.A. in ES&P is intended to train individuals to go directly from Clark into problem solving jobs in the areas of health risk assessment, ecological risk assessment, technology assessment, environmental policy, resource management, computer modeling, and other selected fields.

The Graduate Curriculum

A total of 10 credit courses at 200-level are required for an M.A. degree. Of these, 5 are earned through the core curriculum and 5 through a combination of elective classroom courses and directed readings and research. A maximum of 3 credits can be earned through directed reading and research. Two of the 10 courses are taken during the senior year. Therefore, the full program can be completed in two post-graduate semesters.

Students with strong inclination towards independent research, and who find common research interests with one of the faculty members, are encouraged to earn two credits through completing a master's thesis. A one-credit alternative to thesis, consisting of a critical review paper, is also available. M.A. theses and review papers are presented in a departmental seminar.

The Degree Requirements

(1) Five courses from the following list:

EN 226 Societal Analysis and Evaluation of Environmental Hazard
EN 240 Energy and the Environment
EN 241 Environmental Toxicology

EN 246 Cancer: Science and Society
EN 250 Technology and Environmental Assessment
EN 251 Limits of the Earth
EN 261 Decision Methods for Environmental Management and Policy
EN 265 Tools for Quantitative Policy Analysis
EN 282 Management of Environmental Pollutants

(2) *Electives*

These may be chosen from the above list or from other departments and programs. The selection of elective courses depends on the track chosen by the student—Risk Analysis and Management; Environmental Management and Policy—and should be done in consultation with the Graduate Faculty Advisor. Electives may be taken as formal courses or as Directed Readings/Research.

(3) *Independent Research Project*

A master's thesis (two credits) or review paper (one credit), based on research participation with either ES&P or affiliated faculty, must be approved by the principal advisor and one other faculty member, and orally presented.

Courses with EN Designation

Consult the Environmental School section for courses with ES designation.

102 INTRODUCTION TO ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

Provides an overview of the physical and humanistic components of major global environmental problems — world food supplies, tropical deforestation, acid rain, ozone layer destruction, and land degradation. Students are introduced to the major biogeochemical cycles, interactions of the atmosphere and hydrosphere, and measurable trends in global ecology. Poverty, world health, population trends, and the roles of science and technology are examined as factors in, and products of, the global environment. Ms. Emel/Offered every year

115 HYDROLOGY/LECTURE

Provides an overview of the hydrologic cycle and its major components including precipitation, evapotranspiration, soil moisture, surface water runoff, and groundwater flow. Focuses on the role of water as a unifying concept in environmental science. Examines human modification of natural hydrologic regimes. Prerequisite: Geography 014 Ms. Emel/Offered every other year

124 ECONOMY AND ENVIRONMENT/LECTURE, DISCUSSION

Addresses the historic intersection of industrialization, urbanization, and ecology. Examines cases of economic, environmental, and political conflict over the past 300 years to gain historic depth on contemporary issues. London air pollution, New York City water supplies, mechanized fishing in the Pacific, European coal mining, and American forestry product industries are among the cases we consider. Investigates the relationships between the environment and work, technology, consumption, finance, and other economic activities. Legal and political histories pertinent to these relations are also addressed. Ms. Emel/Offered every other year

131 MEDICAL ETHICS/LECTURE, DISCUSSION

An investigation of contemporary issues in medical ethics: informed consent, definitions of death, treatment termination and euthanasia, abortion, confidentiality and truth-telling, genetic testing and counseling, research on human subjects, allocation of medical resources, new reproductive technologies, the HIV epidemic, and national health policy. Mr. Derr/Offered every year

142 ENVIRONMENTAL CHEMISTRY/LECTURE, LABORATORY

Focuses on the chemistry related to environmental problems, particularly aquatic chemistry and aquatic pollution. Equilibrium theory is developed as a model for aquatic chemistry, and chemical analyses of local aquatic system are conducted in the laboratory according to Environmental Protection Agency procedures. Staff/Offered every year

157 TECHNOLOGY AND SOCIAL CHANGE/LECTURE, DISCUSSION

Focuses on the interaction between technology and society. Among the topics considered are: the nature of technology and its relationship to society; historical and contemporary case studies of the impact of technology; the nature of technological failures; and forecasts of how technology may change society by the year 2000. Mr. Mitchell/Offered every year

175 SCIENCE, DECISION MAKING, AND UNCERTAINTY/LECTURE, WORKSHOP

Examines decision making under conditions of scientific uncertainty. The goal of the course is to describe: (1) strengths and limitations of scientific analysis in the assessment of environmental and technological issues and (2) methods designed to aid decision making under uncertainty. Initial emphasis is on the structure of scientific knowledge, ways of knowing, and types of scientific uncertainty, with examples drawn from particle physics, chemistry, engineering, epidemiology, and opinion research. Case studies of environmental and technological risk management take these issues into the "real world." Weekly workshop includes practical exercises in statistical treatment of data, fitting data to a form, calculation of uncertainty, interpretation of epidemiological data, and computer simulations of dose-response models and multicompartmental kinetic models. This course can be taken for a scientific perspective credit. Ms. Brown/Offered every year

200 LAND DEGRADATION/SEMINAR

Resource use has often resulted in the degradation of aquatic and terrestrial productivity. The roles of agriculture, deforestation, urbanization, and industrialization on the land degradation problem are examined both in contemporary and historical frameworks. Mr. Lewis, Mr. Johnson/Offered every other year

210 ENVIRONMENT AND SOCIETY/LECTURE, DISCUSSION

Analyzes the relationship between human societies, especially those that are industrialized, and the natural environment. Among the topics to be considered are: the impact of industrialization on nature, the population-resource debate, the rise of modern environmental concern and political action, and pesticides and energy policy issues. Mr. Mitchell/Offered every year

216 ECOLOGY/LECTURE

Provides an overview of ecology as a scientific discipline. The primary emphasis is on efforts to explain and predict the distribution and abundance of organisms, how ecological communities are composed, and why they vary in time and space. Mr. Livdahl/Offered every year

218 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world is changing more rapidly than at any time in history. This course reviews the patterns of change in the Third World, examines the role of environment and resource management in development, and allows students to develop their own in-depth case studies. Permission of instructor required. Mr. Lewis/Offered every other year

226 THE SOCIETAL ANALYSIS AND EVALUATION OF ENVIRONMENTAL HAZARDS: THEORY AND METHODS/SEMINAR

Theory and methods of hazard assessment and social response. Covers natural, technological, and global hazards and includes such topics as human vulnerability, disasters, public perceptions, social amplifications of risk, social learning, and corporate management of risk. Mr. Kasperson/Offered every year

240 ENERGY AND THE ENVIRONMENT

The production and utilization of energy plays a central role in modern civilization, and constitutes an increasing drain on our natural resources. Undesired byproducts of large-scale energy usage are becoming more apparent, including local heating of streams and global warming, pollution of the atmosphere and ocean, and real and perceived dangers related to the use of advanced technology. The course explores these environmental concerns in the context of the possibilities and limitations set by physical laws, and considers the extent to which science must be involved in their resolution. Prerequisite: two semesters of introductory physics. Mr. Blatt/Mr. Hohenemser (Proposed for Fall 1998)

241 ENVIRONMENTAL TOXICOLOGY/LECTURE, DISCUSSION

Focuses on the assessment of hazardous properties of toxic chemicals in the environment and on development of public health policy. Covers the principles of absorption, distribution, excretion, and toxic action of chemicals on humans; animal testing; and human epidemiology. Also covers assessment of public health risks on the basis of animal and human test results, development of standards for air and water contaminants, and uncertainty in regulating hazardous chemicals. Prerequisite: one semester of organic chemistry or permission of the instructor. Ms. Brown/Offered every other year

246 CANCER: SCIENCE AND SOCIETY/SEMINAR

Focuses on one of the most dreaded diseases in modern society: cancer. Examines the geographic distribution of cancer in this country and the world, factors contributing to its formation, and the biological mechanisms underlying cancer. Concentrates on screening techniques for detecting cancer-causing agents and on methods for assessing and regulating cancer risks and on case studies of selected human carcinogens as well as social and political controversies surrounding this disease. Ms. Brown/ Offered every year

247 COMPUTER AND QUANTITATIVE METHODS IN RISK ANALYSIS/LECTURE, LABORATORY

Introduces the methods used in quantifying risk, including applications of risk taxonomies, actuarial analysis, dispersion models, dose-effect relations, probability risk analysis, epidemiology, and toxicology. Special emphasis will be given to the limitations of these methods and the problem of uncertainty. Applications will be drawn from classic case studies in environmental and technological risk. Mr. Ratick/Offered every year

249 SPATIAL ANALYSIS/LECTURE

Students describe, evaluate, and predict the patterns of physical and social relations between and among places. This course provides a systematic development of the theories and methods used for spatial analysis with specific emphasis on those most applicable to decision making. Topical areas for potential application of these techniques include environmental assessment, transportation analysis, and resource management. The ways in which these methods can be used with geographical information systems will be developed. Mr. Ratick/Offered periodically

250 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT/SEMINAR

A survey of analytic techniques used in evaluating environmental conditions and the impacts of technology. These techniques consist of formal methods such as cost-benefit, risk-benefit, cost-effectiveness, and decision analysis. They also include methods used to elicit human judgment and behavioral responses in evaluating complex environmental and technical systems. Draws on case studies and teaches students to make both quantitative and qualitative assessments. Mr. Ratick/Offered every year

251 LIMITS OF THE EARTH/SEMINAR

Examines a variety of perspectives on the global environment and economic development, such as the biological concept of carrying capacity and economic concepts of growth. Topics covered include population growth, food production, energy and other resources, and critical chemical cycles. Attention is paid to the national and international institutions which set policies on these issues. Central to the course is a critical analysis of concepts of "sustainable development." The course is conducted as a seminar and also emphasizes quantitative tools in data analysis and systems modeling. Mr. Goble/Offered every year

252 CORPORATE ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

This course will investigate the relationships between these organizations and the natural environment. Discussion relating to these relationships will include issues that impact corporate and functional strategy and operations. Discussion topics will include the introduction to, use, implementation and application of such tools as ISO 14000, Total Quality Environmental Management, Green Supply

Chains/Purchasing, Design for the Environment and Life Cycle Analysis. Mr. Sarkis/ Offered every other year

261 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT AND POLICY/LECTURE, DISCUSSION

Information on environmental assessments impact needs to be systematically organized and analyzed to be useful in the decision-making process. This course provides a survey of methods that are currently used to aid environmental makers (who include policy makers, environmental managers, and affected populations). Covers techniques such as: decision analysis, benefit/cost analysis, multi-criteria evaluation, multi-objective analysis, multi-attribute utility theory, the analytical hierarchy process, and spatial analytical methods using geographical information systems. These methods will be evaluated with respect to their theoretical foundations, systems formulation, and appropriate application. A critical evaluation of the strengths and weaknesses of these methods will also be discussed. Mr. Ratick/Offered yearly

265 TOOLS FOR QUANTITATIVE POLICY ANALYSIS/LECTURE, DISCUSSION

Discusses policy goals that have been advocated for risk management decision making on environmental and occupational chemical exposures—including equity in the distributions of risks and benefits, and appropriate priority-setting for the efficient use of public and private resources. Students apply quantitative analysis techniques to risk/policy problems through: relevant sets of categories for analysis, reflecting both value and causal mechanism considerations; mechanistic dynamic modeling of physical/biological processes, analysis of distributions—including but not limited to fitting distributions to data—in order to elucidate both variability and uncertainty; and basic use of spreadsheets. Mr. Hattis/Offered every year

271 GROUNDWATER HYDROLOGY AND MANAGEMENT/LECTURE, DISCUSSION

Introduces both the geological and hydrological factors controlling the occurrence and development of groundwater. Discusses the methods and impacts of groundwater, and groundwater management. Ms.Emel/Offered every other year

276 ENVIRONMENTAL LAW/LECTURE, DISCUSSION

Focus on the development and administration of environmental law. The course is structured largely on the case method, with most cases drawn from U.S. federal law. Covers the critical constitutional/legal issues that have been at the foundation of American environmental law, particularly the concepts of "takings" and "standing." Also covers a range of issues where the case law is substantial, interesting, and controversial, such as pollution control and economic development, species protection, nuclear power and waste disposal, and resource extraction. Inclusion of a unit on international law may be possible. Mr. Cook/Offered every year

280 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

Students explore the ecology and physical geography of cities as systems built, inhabited, and "managed" by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and plant and animal species as well. Readings, lectures, discussion, and written work combine landscape and systems ecology with physical and urban geography to broaden our understanding of city environments, both present and possible. Ms. Rocheleau/Offered periodically

282 MANAGEMENT OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Studies approaches to regulating hazardous chemicals in air, water, and food. The course is built around the three general types of interventions that have been practiced by the regulatory agencies over the last three decades: shifting to safer technologies; issuing licenses to pollute in the form of industrial emission permits; and setting standards for air, water, and food contaminants. The scientific controversies in setting standards and issuing permits are presented vis a vis the legislative mandates, the need for benefit-cost accounting, and the scientific uncertainty. The strengths and weaknesses of command-and-control system versus the incentive-based system with regard to industrial enterprises are also discussed. Emphasizes recent efforts to decrease government involvement in corporate environmental management and to shift towards an incentive-based regulatory system. While focus is on public policies in the United States, international comparisons with Western European and Eastern European countries are included. The course has a seminar format, with weekly student presentations and class discussions. Ms. Brown/Offered every year

289 PROBLEMS IN POLITICAL ECONOMY OF DEVELOPMENT/SEMINAR

Assumes considerable background in development theory. Surveys recent changes in developmental thinking at an advanced level, focusing on the influence of postmodern social theory on discourses of development. Mr. Peet/Offered every year

296 REMOTE SENSING/LECTURE, DISCUSSION

See Geography 189

297 GIS AND LOCAL PLANNING/SEMINAR, PROJECT

Explores the issues and procedures involved in the application of GIS to local government planning. A central component of the course is the development of hands-on familiarity with the Arc/Info vector-based system, and its application in database development (data conversion), routine data management and planning activities. Prerequisite: Geography 190 and permission. Staff/Offered every year

304 SEMINAR ON WATERSHED ECOLOGY/SEMINAR

Examines the current scientific literature on the functional ecology and biogeochemistry of contrasting terrestrial ecosystems. Topics covered include the inputs, outputs, and internal transfers of water and nutrients in temperate hardwood forests, pine barrens, tropical rainforests, montane cloud forests, eucalypt woodlands, and arid environments. The processes of rock weathering, leaching from above-ground vegetative surfaces, nutrient uptake by plants, atmospheric inputs, and stream discharge of nutrients are emphasized. The Hubbard Brook ecosystem study is considered in detail with a field trip to the Hubbard Brook experimental watershed in the White Mountains. Mr. Herwitz/Offered every other year

342 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: DRIVING FORCES/SEMINAR

Human-induced global environmental change has reached unprecedented magnitudes and now includes direct impacts on the biogeochemical flows that sustain the biosphere. Social science understanding of the human dimensions of this scale and kind of change is poorly developed, and the research agenda to address is still emerging. This seminar explores the role of humankind as the driving force or source of global change. Emphasis is placed on the development of a framework that helps to identify these forces and to understand their role by situation (local/regional variability) and by spatial scale. Mr. Turner/Offered periodically

343 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: SOCIETAL RESPONSES/SEMINAR

Explores societal responses to and management of global environmental change. Major topics to be addressed are: societal response pools, adaptation vs. adjustment, surprise, vulnerability analysis, policy analysis, social learning, and regime theory. Mr. Kasperson/Offered every other year

345 RESEARCH SEMINAR IN ENVIRONMENTAL PERCEPTION/SEMINAR

Examines theories and major research on the human perception of the natural and social environment and the relationship between perception and behavior. Attention is given to the relevant methodologies. Part of the semester is devoted to students' research interests. Mr. Mitchell/Offered periodically

350 NATURE, SOCIETY, AND TECHNOLOGY/SEMINAR

Examines theories and major research findings on the relationship between human societies and the natural environment. Mr. Mitchell/Offered every other year

351 RESOURCE GEOGRAPHY: THEORY AND METHOD/SEMINAR

Examination of major theories and methods of resource estimation, allocation, and management, providing coverage of the scholarly literature of the field. Ms. Emel/Offered every other year

Directed Reading and Research

297 CAPSTONE RESEARCH/SEMINAR

A required course for senior ES&P majors, this seminar offers an opportunity to integrate the strands of the ES&P major or to prepare a research proposal for a master's thesis. Specific topics for investigation are chosen largely on the basis of student interest from a broad array including global environment threats, energy and other resource issues, arms control and disarmament, and technological risk assessment and management. Unlike a regular course, student presentations constitute a major portion of class meetings, with the instructor as a facilitator of discussion and as a general resource for the group. Students must be seniors or second-semester juniors and must have completed a substantial fraction of their major requirements. Mr. Goble or Mr. Hohenemser/Offered every year

298 DIRECTED READINGS

Offered to undergraduate students who want to pursue a specific topic on their own, with tutorial assistance by a faculty member. By permission only. Staff/Offered every semester

299 RESEARCH AND THESIS

Offered to students who want to conduct research under the guidance of faculty. The product of the research may be an undergraduate thesis acceptable for honors in Environmental Science & Policy, or it may be another product to be defined by the student and faculty tutor. By permission only. Variable credit. Staff/Offered every semester

398 DIRECTED READINGS AND RESEARCH

Offered to graduate students who want to pursue a specific topic on their own under the supervision and guidance of a faculty member. By permission only. Variable credit. Staff/Offered every semester

399 MASTER'S THESIS

Staff/Offered every semester

FOREIGN LANGUAGES AND LITERATURES

Department Faculty

Carol C. D'Lugo, Ph.D., *chair: Spanish and Spanish American narrative, literary theory*

María Acosta Cruz, Ph.D.: *Spanish American literature, Baroque literature, postmodern literature, comparative literature, contemporary literary theory*

Michiko Aoki, Ph.D.: *Japanese language and culture*

Paul F. Burke Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology*

Marvin A. D'Lugo, Ph.D.: *Hispanic literature and film, narrative theory*

William Ferguson, Ph.D., *Spanish Golden Age literature, 20th-century Hispanic literature*

Everett Fox, Ph.D.: *Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*

Kenneth Hughes, Ph.D.: *19th- and 20th-century European literature, comparative literature, literary theory*

Hartmut Kaiser, Ph.D.: *German language and literature, German romanticism, the fairy tale, relations between music and literature*

Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers, autobiography, French and Francophone cultural studies*

Walter Schatzberg, Ph.D.: *Age of Goethe, German expressionism in literature and the arts, German cinema, relations between literature and science*

Michael K. Spingler, Ph.D.: *French theater and film, comparative drama, translation*

Adjunct Faculty

Marcia Butzel, Ph.D.: *French and Italian film, cultural studies, French narrative*

Part-time Faculty

Tzilla Barone, B.A.: *Hebrew language and literature*

Tatyana K. Macaulay, Ph.D.: *Russian and Czech languages and literatures, Old Russian literature, 19th- and 20th-century Russian literature, Russian culture*

Constance M. Montross, Ph.D.: *Spanish-American literature*

Catherine C. Quick Spingler, M.A.: *French language and literature*

Ivy Sun, M.A.: *Latin*

Emeriti

Raymond E. Barbera, Ph.D.: *Romance languages*

The Foreign Languages and Literatures Department is part of the Alice Coonley Higgins School of Humanities.

Undergraduate Program

The program investigates how peoples and nations express themselves through language, literature and other cultural phenomena. The interdisciplinary spirit of the program illuminates the relationship between national literatures and other areas of the humanities and social sciences.

The major is offered in French and Spanish. It is also possible, at the Department's discretion, to major in more than one language (the Combined Foreign Languages Major). A student-designed major in German is also available (see page 7).

There are majors available in Comparative Literature and Ancient Civilization as well. Though based in Foreign Languages and Literatures, these two programs–together with the minor offered by Ancient Civilization–are described elsewhere in the catalog under their own headings.

Major Requirements

1. Eight courses above the intermediate level.

In French, major credit is given for courses above French 106; in German, above German 102; in Spanish, above Spanish 127.

The eight required courses include:

a. An introductory-level course in literature;
b. A course in culture criticism;
c. For Spanish majors, an advanced grammar and composition course (Spanish 237 or the equivalent); for French majors, French 136 or 137;
d. The Advanced Topics course (299);
e. At least two courses taken in a Clark-sponsored or Clark-approved study abroad program. (This requirement may be waived in special circumstances.)

At least four of the eight required courses must be taken in residence at the Worcester campus.

2. Five related courses, at least one of which must be Comparative Literature 130, The National Imagination.

These five related courses are to be selected with the major advisor. They might be courses in other languages and literatures, or in subjects further afield that enrich the student's understanding of core material. When the major program is concentrated in one language, a reading knowledge of a second language is strongly recommended. Only course grades of C or better may be counted toward the major.

Requirements For The Combined Foreign Languages Major

a. Five courses in each of two languages, chosen from the list of courses that would count toward a single-language major (German 103 and above; French 120 and above; Spanish 131 and above);
b. The Advanced Topics course (capstone course, numbered 299.7) in at least one of the two language areas chosen;
c. One course in Comparative Literature, normally the core course (CMLT 130) required of all our majors;
d. Four related courses, as determined in consultation with the student's major advisor;
e. At least two units of study abroad in a culture in which one of the target languages is spoken. Ordinarily, courses taken abroad may be counted toward the five required courses in each language area.

The Minor in Foreign Languages and Literatures

A minor program in Foreign Languages and Literatures is offered in French, German, and Spanish.

To qualify, a student must complete six courses in the chosen discipline at a level of difficulty that would count toward a major in that field. Some courses may be replaced by courses outside the field of study but related to it (a course in Latin American history, for example, might be counted as a related course toward a minor in Spanish). Advanced Topics courses required of majors (French 299, German 299, and Spanish 299) are not required for the minor, but they may be taken for minor credit with permission of the instructor. Courses taken in study abroad programs may be counted toward the minor, at the department's discretion. Students must declare their intention of fulfilling a minor by the end of the junior year. Only course grades of C or better may be counted toward the minor.

The Advisor System

Advisors are faculty in appropriate disciplines who are assigned to students when their major or minor is declared. Students and advisors should meet regularly. Advisors suggest a course of study, discuss and approve related courses, and, for majors, identify areas of special interest that could lead to an Honors project.

Honors in Foreign Languages and Literatures (Majors Only)

Majors who have done well in their Advanced Topics course (299) are invited to do an Honors project in the senior year. Students wishing to work for Honors should 1) determine a suitable topic, in consultation with the major advisor, 2) find a faculty supervisor in the appropriate area of study (it may or may not be the major advisor), and 3) secure the permission of the department chair. A second faculty reader will participate in the final evaluation of the Honors project.

Applicants for Honors should ordinarily ask the chair's permission before the end of the junior year. (Extensions of this deadline may be granted in special circumstances.) The Honors project supervisor and the student are expected to agree on a work schedule, but in any case a preliminary draft of the project must be completed by the first Monday in April. The final version is due one week before the last day of classes.

An Honors project counts as one unit of credit.

Study Abroad

Information on study abroad programs in France, Germany, and Spain is available at Clark's Office of Study Abroad Programs.

Advanced Courses

Advanced courses, listed by area of concentration:

Language Courses

- French 120 Ways of Writing, Ways of Speaking
- French 145 Translation Workshop
- German 131 Spoken and Written German
- Spanish 127 Practice in Oral and Written Spanish
- Spanish 141 Spanish Translation Workshop
- Spanish 237 Advanced Oral and Written Spanish

Studies In Literature

- French 131 Readings in French Literature: History, Genres
- French 275 Sartre, Beauvoir, Camus
- German 145 The German Novelle
- German 140 Modern German Prose
- German 156 The Modern German Short Story
- Spanish 131 Readings in Hispanic Literatures
- Spanish 236 Women in Hispanic Literature
- Spanish 238 Hispanic Literature of Political Commitment
- Spanish 239 Hispanic Caribbean Fiction
- Spanish 242 The Latin American Novel
- Spanish 245 Hispanic American Short Story
- Spanish 260 The Age of Cervantes

Studies In Culture

French 136/137 Studies in French Culture
French 240 Paris in Arts and Literature
French 246 History, Writing, and Ideology: France since 1940
French 249 The French-speaking World
French 261 French versus American Television
German 112 The Fairy Tales of the Brothers Grimm
German 134 Germany and the European Union
German 168 Music in German Literature and Thought
German 188 The Culture of the Weimar Republic in Literature, Film, and the Arts
German 197 The Faust Theme in Literature and Music
Spanish 117 Field Work in the Hispanic Community
Spanish 133 Studies in Hispanic Culture
Spanish 243 Latin American Essay and Thought

Studies In Film And Theater

French 160 French Culture Seen Through Film: Jean Renoir
French 263 History of French Cinema
French 267 French Cinema: The New Wave
French 270 The Modern French Theater: Experiments of the Avant-Garde
German 150 The New German Cinema
Spanish 140 Spanish Dramatic Expression: Play Production
Spanish 246 Studies in Spanish Cinema
Spanish 248 Studies in Latin American Cinema
Spanish 249 Studies in Hispanic Cinemas

Courses

A. Chinese

CHINESE 101-102 ELEMENTARY CHINESE/ LECTURE, DISCUSSION

Introduces the Chinese language (standard Mandarin) for students with no background in Chinese. Focus is on all four language skills—speaking, listening, reading and writing—including the writing of Chinese characters. No credit is given for Chinese 101 without successful completion of Chinese 102. Staff/ Offered every year

B. Classics

GREEK 101-102 INTRODUCTORY GREEK/ LECTURE, DISCUSSION

Introduces the language of classical Greece. Covers the grammar and syntax of the Ancient Greek. Students read Ancient Greek texts including philosophical works such as Plato's "Apology of Socrates and Crito," and selections from Homer, Herodotus, and the New Testament. No credit is given for Greek 101 without successful completion of Greek 102. Mr. Burke/ Offered every year

LATIN 101-102 INTRODUCTORY LATIN/ LECTURE, DISCUSSION

Introduces Latin grammar and syntax and Latin's role as parent to the Romance languages and source of much modern English vocabulary. Students read Catullus or Horace, Julius Caesar or Livy, and the Vulgate Bible. No credit is given for Latin 101 until successful completion of Latin 102. Ms. Sun/Offered every year

C. French

FRENCH 101-102 ELEMENTARY FRENCH/ LECTURE, DISCUSSION

For students with no background in French or up to two years of high school French. Students work on all four language skills—listening, speaking, reading, writing—to develop an active knowledge of French. Students participate in weekly conversation groups with a French teaching assistant and work individually in the language lab. No credit is given for French 101 without successful completion of French 102. Staff/Offered every year

FRENCH 103 ELEMENTARY FRENCH: INTENSIVE/ LECTURE, DISCUSSION

Entry-level course for students with more than two years of high school French or the equivalent but who are not yet ready for intermediate-level work. Emphasizes active communication through speaking and writing. There are weekly discussion groups with a French teaching assistant and individual laboratory work. Staff/Offered every year

FRENCH 105 INTERMEDIATE FRENCH I/ LECTURE, DISCUSSION

Consolidates basic skills for students who have completed French 102 or the equivalent. Emphasizes communicative proficiency: the development of oral and written skills, self-expression, and cultural insight. There are weekly conversation groups with a French teaching assistant. Prerequisite: French 102, 103, or equivalent determined by placement exam. Staff/Offered every semester

FRENCH 106 INTERMEDIATE FRENCH II/ LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature, and culture. Emphasizes literary and cultural texts. Develops ability to articulate ideas and to participate in meaningful discussions in French. Grammar review is based on specific needs of the group as revealed by class work and compositions. There are weekly conversation groups with a native French speaker. Prerequisite: French 105 or equivalent determined by placement exam. Staff/Offered every semester

FRENCH 120 WAYS OF WRITING, WAYS OF SPEAKING/LECTURE, DISCUSSION

This third-year level course increases communicative competence in writing and speaking French. Models taken from French and Francophone texts are used as a basis for critical expression. Develops awareness of different registers of French and strengthens both grammatical control and range of language use. Prerequisite: French 106 or equivalent determined by placement exam. Staff/Offered every semester

FRENCH 130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

FRENCH 131 READINGS IN FRENCH LITERATURE/ LECTURE, DISCUSSION

Introduces analysis and understanding of French literary texts and their visions of the world and of the self. Focuses on literary structures and conventions that form the basis of different genres through history. Readings include a wide range of complete texts in prose, theater, and poetry. Prerequisite: French 120 or permission. Staff/Offered every year

FRENCH 136,137 STUDIES IN FRENCH CULTURE/ LECTURE, DISCUSSION

Two courses concentrating on the evolution of traditional French values, myths, and social institutions. Both courses emphasize their relation to cultural and social reality. Students may take one or both courses. Prerequisite: French 120 or above or permission. **French 136:** Louis XIV's Gardens of Versailles and Napoleon III's redesigning of Paris as cultural text that represent dominant political and social ideologies. Mr. Spingler/Offered every year. **French 137:** Questions of cultural identity and cultural difference, with particular attention to Franco-American (dis)connections and to issues of immigration. Ms. Kaufmann/Offered every other year

FRENCH 145 TRANSLATION WORKSHOP/ LECTURE, DISCUSSION

Students work on various texts (advertising, journalism, theater, film scripts, and fiction) exploring theory, techniques, and problems of translation. Emphasizes translation from French into English and stresses lexical and syntactic aspects of comparative style. Students become acquainted with the variety of texts an American professional translator might expect to work on, including film subtitling. Prerequisite: French 120 or above or permission. Mr. Spingler/Offered every other year

FRENCH 160 FRENCH CULTURE SEEN THROUGH FILM: JEAN RENOIR/LECTURE, DISCUSSION

Analyzes cinematic aesthetic and narrative strategies of the films of Jean Renoir, a leading figure in French cinema. Traces development of his art and focuses particularly on the way two works, "The Grand Illusion" and "The Rules of the Game," explore the historical problem of a continuing presence of pre-revolution values and myths within 20th-century French "republican" culture. Taught in English and French sections. Prerequisite for students receiving French credit: one course above 130 or permission. Mr. Spingler/Offered periodically

FRENCH 215 20TH-CENTURY FRENCH AND FRANCOPHONE WOMEN WRITERS/LECTURE, DISCUSSION

See Comparative Literature 215.
Ms. Kaufmann/Offered every other year

FRENCH 240 PARIS IN ARTS AND LITERATURE/SEMINAR

Investigates changing urban consciousness of 19th-century France by examining problems of representing the city through urban planning (architecture and urban landscape), and through visual representation of Paris by two painters, Caillebotte and Manet, and the literary representation of Paris by two poets, Baudelaire and Rimbaud. Given in French. Prerequisite: two French courses above 130 or permission. Mr. Spingler/Offered periodically

FRENCH 246 HISTORY, WRITING AND IDEOLOGY: FRANCE SINCE 1940/LECTURE, DISCUSSION

An interdisciplinary analysis of contemporary France, using literature, social texts, and film. Focuses on the Occupation, the French war in Algeria, new cultural and artistic ideologies. Sometimes given as a research seminar (French 299). Prerequisite: Two courses above 130 or permission. Ms. Kaufmann/Offered periodically

FRENCH 249 THE FRENCH-SPEAKING WORLD/ LECTURE, DISCUSSION

An interdisciplinary analysis of the problematic role of French language and the culture it represents in various parts of the world, emphasizing French-speaking Africa, the Maghreb, and the Antilles. Through literature, social texts, and film we explore such issues as tradition and modernity; the négritude movement; the Algerian war; women and Islam; conflicts between indigenous and French social codes. Prerequisite: two French courses above 130 or permission. Ms. Kaufmann/Offered every other year

FRENCH 261 FRENCH VERSUS AMERICAN TELEVISION/LECTURE, DISCUSSION

See Screen Studies. Ms. Butzel/Offered periodically

FRENCH 263 HISTORY OF FRENCH CINEMA/ LECTURE, DISCUSSION

See Screen Studies. Ms. Butzel/Offered every other year

FRENCH 267 FRENCH CINEMA: THE NEW WAVE/ LECTURE, DISCUSSION

Focuses primarily on the films of Jean-Luc Godard, which profoundly changed the "look" of contemporary cinema including American films. Also includes films by François Truffaut, Louis Malle, and Claude Chabrol, but primarily explores how Godard's radical transformations of film form reflected the crisis in cultural and political consciousness in France in the 1960s. Taught in English. Prerequisite for French credit: two courses above 130 or permission. Mr. Spingler/Offered periodically

FRENCH 270 THE MODERN FRENCH THEATER: EXPERIMENTS OF THE AVANT-GARDE/LECTURE, DISCUSSION

Studies the origins and developments of the avant-garde theater of France with particular emphasis on the staging of the plays. Focuses on the theater since 1950, especially works by Ionesco, Beckett, Genet, and Arrabal. Explores affinities between these playwrights and Dada and Surrealist movements and studies three precursors: Jarry, Ghelderode, and Artaud. Conducted in French. Prerequisite: two courses above 130 or permission. Mr. Spingler/Offered periodically

FRENCH 275 SARTRE, BEAUVOIR, CAMUS/LECTURE, DISCUSSION

A study of representative literary works of each writer in the context of his or her philosophical and political theories. We explore such questions as freedom and existential choice, the absurd, ideologies of revolt, and the aesthetics and ethics of *littérature engagée*.
Ms. Kaufmann/Offered periodically

FRENCH 299 ADVANCED TOPICS/SEMINAR

A required capstone course for senior majors. Open to advanced students with permission of instructor. Modified versions of courses above the 200 level are offered periodically for 299 credit. Ms. Kaufmann, Ms. Spingler/Offered periodically

COURSES OFFERED AT L'UNIVERSITE DE BOURGOGNE, DIJON, FRANCE

Students who participate in Clark's study abroad program at the Université de Bourgogne may take up to 8 course units in French and other fields. Courses are offered both in the Faculté des Lettres and the Faculté de Droit and at the Centre International d'Etudes Françaises (CIEF). The following is a representative list of courses which have been offered in the past:

Faculté de Lettres et Faculté de Droit

- Thème et Version – Translation Workshop French-English and English-French
- Littérature française – Romantisme et Modernité
- Littérature française – L'Univers balzacien
- Littérature française – Le Roman au XVIIe et XVIIIe siècles
- Littérature comparée – Paris entre les deux guerres
- Littérature comparée – Images de la femme dans la littérature française
- Histoire de L'Art médiévale
- Histoire de la Bourgogne médiévale
- Histoire économique et sociale
- Initiation à l'histoire rurale
- Institutions politiques comparées
- Analyse de la vie politique
- Politiques européennes

Centre Internationale d'Etudes françaises

- Composition et expression écrite – Advanced written French
- Grammaire
- Stylistique
- La littérature et ses genres
- Civilisation: La France contemporaine
- Histoire de l'art: La peinture française au milieu du XIXe siècle
- Culture et musique
- Cinéma
- Théâtre contemporain
- Les philosophies de l'existence en France
- Histoire de la Troisième République
- Français économique et commerciale

D.German

GERMAN 101-102 INTRODUCTORY GERMAN/ LECTURE, DISCUSSION

Imparts an active command of German. Combines grammar, oral practice, and readings in literary and expository prose. There are weekly conversation groups with a native German speaker and individual laboratory work. No credit is given for German 101 without successful completion of German 102. Mr. Kaiser, Mr. Schatzberg/Offered every year

GERMAN 103 INTERMEDIATE GERMAN I/ LECTURE, DISCUSSION

Consolidates basic skills for students who have completed German 102 or the equivalent. Reviews grammar, reading, and discussion of selections from newspapers and magazines. Develops skills in oral and written expression. There are weekly conversation groups with a native German speaker and individual laboratory work. Prerequisite: German 102 or equivalent. Mr. Hughes/Offered every year

GERMAN 104 INTERMEDIATE GERMAN II/ LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature, and culture. Reviews grammar and studies literary works on themes of contemporary German culture. Develops the ability to articulate ideas and to participate in discussions in German. There are weekly conversation groups with a native German speaker as well as individual laboratory work. Prerequisite: German 103 or equivalent. Mr. Hughes/Offered every year

GERMAN 130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

GERMAN 131 SPOKEN AND WRITTEN GERMAN/LECTURE, DISCUSSION

This third-year course strengthens speech habits, increases vocabulary, and improves written expression. Literary and journalistic texts serve as a basis for discussion of contemporary issues. Weekly written assignments. Prerequisite: German 104 or equivalent. Mr. Kaiser/Offered every year

GERMAN 134 GERMANY AND THE EUROPEAN UNION/LECTURE, DISCUSSION

Explores issues surrounding the reunification of Germany and its association with other European states. Students select and analyze (in German) articles and other documents on social, cultural, political and economic topics from sources in government, the independent media, etc. Prerequisite: German 131 or equivalent; basic VAX familiarity. Mr. Hughes/ Offered every other year

GERMAN 140 MODERN GERMAN PROSE/LECTURE, DISCUSSION

Studies prose by Kafka, Hesse, Mann, Böll, Grass, Plenzdorf, and Wolf; includes discussions, oral and short written reports in German. Prerequisite: German 131 or equivalent. Mr. Hughes/Offered every other year

GERMAN 156 THE MODERN GERMAN SHORT STORY/LECTURE, DISCUSSION

After years of isolation and stagnation during and after the Nazi period, young writers, anxious to establish new values and connect with international literary developments, discovered the English and American short story and adapted it to historical, social, and cultural conditions in Germany. The short story has become the most important literary form. This course reviews leading modern German writers, emphasizing thematic variety and structural complexities. Prerequisite: German 131 or equivalent. Mr. Hughes/Offered every other year

GERMAN 206 SPECIAL TOPICS IN GERMAN

Offered for variable credit. Staff/Offered every semester

GERMAN LITERATURE COURSES CONDUCTED IN ENGLISH

GERMAN 112 THE FAIRY TALES OF THE BROTHERS GRIMM/LECTURE, DISCUSSION

Fairy tales are among the oldest and simplest forms of literature. They communicate archetypal patterns of experience and behavior; they reflect wisdom of all ages derived from all cultures; their moral teaching is universal. The collection of the Brothers Grimm includes 210 fairy tales; about half of them are studied using a variety of critical analysis methods. No prerequisites. Mr. Kaiser/Offered every other year

GERMAN 150 THE NEW GERMAN CINEMA/LECTURE, DISCUSSION

Studies films by German directors Fassbinder, Herzog, Kluge, Schlöndorff, Sanders-Brahms, Von Trotta and Wenders. Examines the cinematique technique and world view unique to each director. Also examines German-American cultural cross currents and social issues. Students study the films, read critical writings, write film critiques and produce a paper on the New German Cinema. No prerequisites. Mr. Schatzberg/Offered every other year

GERMAN 168 MUSIC IN GERMAN LITERATURE AND THOUGHT/LECTURE, DISCUSSION

Explores approach of musicians, philosophers, and writers to the power and emotion of music. An ever-growing number of authors incorporate music experiences in their writings. Explores the humanistic and political spirit that enlivens the study of literature. Emphasizes literary and musical forms and structures of authors including: Wackenroder, Kleist, E.T.A. Hoffmann, Heine, Mörike, Schopenhauer, Wagner, Nietzsche, Hesse, Beheim-Schwarzbach and Thomas Mann. Also includes discussion of operas by Mozart, Beethoven, Weber, Wagner, Strauss. No prerequisites, but an appreciation for music and literature is necessary. Mr. Kaiser/Offered every other year

GERMAN 188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM, AND THE ARTS/LECTURE, DISCUSSION

Explores modernism and modernity in German literature and art during the Weimar Republic (1918-1933). Studies novels, plays, films, and paintings within the framework of cultural and political developments in Germany from the turn of the century to the rise of National Socialism. Mr. Schatzberg/ Offered every other year

GERMAN 197 THE FAUST THEME IN LITERATURE AND MUSIC/LECTURE, DISCUSSION

Studies man's search for forbidden knowledge and power as represented in literature and music by the character of Faust, who sold his soul to the devil for wisdom, fame, and sexual gratification. Explores changing concepts and ethical issues of Faust, concentrating on: "The History of the Damnable Life and Deserved Death of Doctor John Faustus" (1587); the Fausts of Marlowe, Goethe, and Thomas Mann; and operatic treatments by Gounod, Berlioz, Boito, and Busoni. No prerequisites. Mr. Kaiser/Offered periodically

GERMAN 299, SEC.7 ADVANCED TOPICS TUTORIAL IN GERMAN LITERATURE/ LECTURE, DISCUSSION

Determined by the needs and interests of individual students. Ordinarily taken by senior German majors as a capstone experience. Other advanced students of German language and literature may be invited to participate in the tutorials as space permits. Staff/Offered every year

E. Hebrew

HEBREW 101-102 ELEMENTARY HEBREW/ LECTURE, DISCUSSION

Modern conversational Hebrew. Emphasizes speaking, reading, writing, and listening skills. Acquisition of vocabulary and basic grammar. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant, and individual work in the language laboratory. No credit is given for Hebrew 101 until successful completion of Hebrew 102.
Ms. Barone/Offered every year

HEBREW 103 INTERMEDIATE HEBREW/ LECTURE, DISCUSSION

Modern conversational Hebrew. Emphasis on speaking, reading, writing, and listening skills. Enrichment and reinforcement of verbal expressions and grammatical structures. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant, and individual work in the language laboratory. Hebrew 102 or the equivalent required.
Ms. Barone/Offered every year

HEBREW 104 INTERMEDIATE/ADVANCED HEBREW/LECTURE, DISCUSSION

Surveys significant Hebrew texts, including literature and newspapers. Enrichment of verbal and written expression and grammatical structures. Two class meetings per week, one hour of drill sessions, and individual work in the language laboratory. Hebrew 103 or the equivalent required. Ms. Barone/Offered every year

HEBREW 105 ADVANCED HEBREW/LECTURE, DISCUSSION

For students who have studied the basics of Hebrew grammar. Reinforces conversational and grammatical skills through discussion, composition, and reading Hebrew literature and newspapers. Prerequisite: Hebrew 104 or the equivalent. Ms. Barone/Offered every year

HEBREW 299, SEC. 6 SPECIAL TOPICS IN HEBREW/DISCUSSION

Presents modern Hebrew literature, predominantly in the original language. Through poetry, short fiction, and current journalism, the course examines major issues in Israeli culture: the early immigrant experience, the Holocaust, and the Arab-Israeli conflict. Students enrich their verbal and written expression and study increasingly complex grammatical structures. Ms. Barone/Offered every year

F. Japanese

JAPANESE 101-102 ELEMENTARY JAPANESE/LECTURE, DISCUSSION

Introduces the Japanese language, emphasizing speaking, listening, reading, and writing. Students learn hiragana and katakana in the first semester, and begin learning kanji in the second. No credit is given for Japanese 101 without successful completion of Japanese 102. Staff/Offered every year

JAPANESE 103-104 INTERMEDIATE JAPANESE/LECTURE, DISCUSSION

A continuation of first-year Japanese, emphasizing learning kanji, mastering more complex grammatical forms, and increasing fluency. Prerequisite: Japanese 102 or permission. Staff/Offered every year

JAPANESE 105-106 ADVANCED JAPANESE/LECTURE, DISCUSSION

Primary emphasis is on building critical vocabulary and understanding Japanese behavior patterns. Prerequisite: permission. Ms. Aoki/ Offered every year

JAPANESE 283 JAPANESE CULTURE AND ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION
See History 283. Ms. Aoki/Offered periodically

JAPANESE 285 JAPANESE FOLKLORE/PROSEMINAR
See History 285. Ms. Aoki/Offered periodically

JAPANESE 289 JAPANESE THOUGHT/PROSEMINAR
See History 289. Ms. Aoki/Offered periodically

G. Russian

Clark students may take additional courses in Russian language and literature at the College of the Holy Cross through the Worcester Consortium for Higher Education.

RUSSIAN 101-102 INTRODUCTORY RUSSIAN/LECTURE, DISCUSSION
A completely new introductory Russian language program that strikes a balance between communication and structure. Focus on contemporary approach to language learning by focusing on functional competence in the four skills—listening, speaking, reading, and writing. Enhanced by video, audio, and computer materials, the class meets three times weekly, plus one practice session with a Russian teaching assistant. Students also study systematically old and modern Russian culture, read Russian short stories and view two Russian films. No credit is given for Russian 101 until successful completion of Russian 102. Ms. Macaulay/ Offered every year

RUSSIAN 103-104 INTERMEDIATE RUSSIAN/LECTURE, DISCUSSION
Focuses on idiomatic usage and develops practical skills dealing with everyday situations such as using the telephone, schedules, menu, etc. These activities combined with viewing of Russian films, news broadcasts, and reading of intermediate prose develop an increased understanding of advanced grammar. Meets three time weekly plus one hour oral practice with a Russian teaching assistant. Prerequisite: Russian 102 or equivalent. Ms. Macaulay/ Offered periodically

RUSSIAN 106 DIRECTED READINGS
Students interested in specific authors and/or topics in Russian literature and civilization may receive instruction and guidance in either English or Russian. Offered for variable credit. Mr. Hughes/Offered every year

RUSSIAN 299 SEC. 6 SPECIAL TOPICS IN RUSSIAN/DISCUSSION, TUTORIAL
Determined by the needs and interests of individual students who may select to study old, medieval, or modern Russian literature; focus on Russian history or Russian Orthodox Church history; Russian folklore and culture; or the history of Russian theater and film.
Ms. Macaulay/Offered periodically

RUSSIAN LITERATURE COURSES CONDUCTED IN ENGLISH

RUSSIAN 187 RUSSIAN 20TH CENTURY LITERATURE IN TRANSLATION/LECTURE, DISCUSSION
Focuses on representative Russian literary works of the 20th century in their historical context. Topics include the Silver Age, the 1920s, Socialist Realism, The Thaw, Village Prose, the "gulag" literature, and the newest post-Soviet works. Texts by such authors as Bely, Mayakovsky, Gorky, Zamyatin, Bulgakov, Pasternak, Nabokov, Rasputin, Shukshin, Solzhenitsyn, Baranskaya, and Ratushinskaya. Some readings in Russian poetics.
Ms. Macaulay/Offered periodically

RUSSIAN 220 THE RUSSIAN NOVEL IN THE 19TH CENTURY/LECTURE, DISCUSSION
Examines representative great Russian works of the last century in English translation, which are considered both as works of literary art and as social and historical artifacts. Readings include Tolstoy's "Anna Karenina," Turgenev's "Fathers and Children," and representative works of Pushkin, Gogol, Dostoevsky, and Chekhov. Mr. Hughes/Offered every other year

H. Spanish

The Spanish program is based on a three-year rotation. Courses listed as offered periodically are generally available at least once every three years.

SPANISH 101-102 ELEMENTARY SPANISH/ LECTURE, DISCUSSION
For students with minimal knowledge of the language, this course develops basic skills in speaking, reading, and writing Spanish. Meets for three hours per week; regular class assignments are supplemented by individual work in the Language Arts Resource Center (LARC). No credit is given for Spanish 101 without

successful completion of Spanish 102. Ms. Acosta Cruz, Ms. Montross, Staff/Offered every year

SPANISH 103 ELEMENTARY SPANISH: INTENSIVE/ LECTURE, DISCUSSION

An accelerated elementary course, intended for students who have had more than two years of high-school Spanish but who do not yet qualify for intermediate-level courses. Three hours per week, plus individual work in the Language Arts Resource Center. Mr. D'Lugo, Ms. Montross, Staff/Offered every semester

SPANISH 105 INTERMEDIATE SPANISH I/ LECTURE, DISCUSSION

Strengthens skills in the language through exercises, including taped interviews with native speakers, improvisational acting, and discussions on readings on Hispanic culture and society. Grammar review is geared to the specific needs of the group. Prerequisite: Spanish 102 or 103, or the equivalent. Ms. D'Lugo, Mr. D'Lugo, Staff/Offered every semester

SPANISH 106 INTERMEDIATE SPANISH II/ LECTURE, DISCUSSION

Normally taken after 105, Spanish 106 includes more extensive readings on Hispanic themes as the basis for class discussion and student essays. Emphasis is on activities in reading, writing, speaking, and conversational understanding as a preparation for more advanced work. Prerequisite: Spanish 105 or the equivalent. Ms. Acosta Cruz, Mr. D'Lugo, Staff/Offered every semester

SPANISH 117 FIELD WORK IN THE HISPANIC COMMUNITY

Offers an opportunity to work in an agency or project serving the Hispanic community in Worcester (the bilingual school program, Casa de la Comunidad, Worcester Legal Services, etc.). Student work is supervised by advisors. Students keep a journal on the experience, examining language, culture, and related problems of the bilingual community. Prerequisites: proficiency in Spanish; successful completion of course work in the field or fields related to the specific project area; permission of instructor. Offered for variable credit. Ms. Montross/ Offered every semester

SPANISH 127 PRACTICE IN ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

A transitional course between intermediate Spanish and the upper-level offerings. Helps students develop fluency and sophistication in spoken and written Spanish. Emphasizes practice in conversation, composition, and selected grammar review. Prerequisite: Spanish 106. Ms. D'Lugo, Mr. Ferguson, Staff/Offered every semester

SPANISH 130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

SPANISH 131 READINGS IN HISPANIC LITERATURES/LECTURE, DISCUSSION

Introduces modern Hispanic narrative, lyric, and dramatic literature. Studies works by authors of Spain and Latin America and their literary, social, cultural, and political context. Readings illuminate such themes as the idea of cultural continuity and modernity, notions of norm and deviance in the Hispanic community, and the concept of revolution as a collective and individual ideal. Since course content is variable, students may request permission to take the class twice. Conducted in Spanish. Prerequisite: Spanish 127. Required for majors. Ms. D'Lugo, Mr. D'Lugo, Mr. Ferguson, Ms. Acosta Cruz/Offered every semester

SPANISH 133 STUDIES IN HISPANIC CULTURE/LECTURE, DISCUSSION

A third-year course introducing students to the diversity of Hispanic culture through readings from literature, history, cultural anthropology, and current Spanish periodicals. Focuses on one or two of the following national cultures: Chile, Cuba, Mexico, Spain, Argentina. Topics include parallel development of Anglo-American and Hispanic cultural institutions, changing identity of the family and the individual in 20th-century society, and the emerging identities and traditional role of women in these societies. Conducted in Spanish. Prerequisite: Spanish 127. Required for majors. Ms. Acosta Cruz, Mr. Ferguson, Mr. D'Lugo, Ms. D'Lugo/Offered periodically

SPANISH 140 SPANISH DRAMATIC EXPRESSION: PLAY PRODUCTION/LECTURE, DISCUSSION

Acquaints students with the rhythms, intonations, and gestures typical of contemporary spoken Spanish. Through study and presentation of two or more contemporary dramatic works, students gain practical experience in linguistic and cultural skills. Although some consideration is given to the texts as literature, the course is primarily a workshop in advanced oral Spanish. Prerequisite: Spanish 127. Staff/Offered periodically

SPANISH 141 SPANISH TRANSLATION WORKSHOP/LECTURE, DISCUSSION

Enables students to translate texts (including commercial and technical documents) from Spanish into English, and vice versa. Studies formal basic linguistic theory and techniques of translating printed material. Prerequisite: Spanish 131. Mr. D'Lugo/Offered periodically

SPANISH 236 WOMEN IN HISPANIC LITERATURE/LECTURE, DISCUSSION

Studies representation of women in Hispanic literature, emphasizing the 20th century. Topics include alienation, identity, family structure, violence against women, and problematic relationships. Readings are from the Spanish and Latin American tradition. Conducted in Spanish. Prerequisite: Spanish 131. Ms. D'Lugo, Staff/Offered periodically

SPANISH 237 ADVANCED ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

An advanced language course offering a more sophisticated review of grammar with exercises in composition, pronunciation, and intonation. Conducted in Spanish. Prerequisite: Spanish 131. Required for majors. Ms. Acosta Cruz, Ms. Montross/Offered periodically

SPANISH 238 HISPANIC LITERATURE OF POLITICAL COMMITMENT/LECTURE, DISCUSSION

Studies the creative writer's position amidst 20th-century revolutionary change. Writers discussed include Pablo Neruda, César Vallejo, Ernesto Cardenal, Francisco Ayala, and Miguel Hernández; Cuban writers and poets in their sometimes ambiguous relationship to their country's revolution; the writers of the Chicano movement and the dream of Aztlán; and Puerto Rican authors, both on the mainland and on their native island. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Mr. Ferguson/Offered periodically

SPANISH 239 HISPANIC CARIBBEAN FICTION/ LECTURE, DISCUSSION

Readings and discussions of 19th- and 20th-century works by principal figures in Spanish-language fiction from the Caribbean Basin. Examines works from all genres, reviews literary expression and major concerns of Hispanic Caribbean literature such as Afro-Antillean cultural movements, neobaroque literature, and literary search for national identity. Conducted in Spanish. Prerequisite: Spanish 131. Ms. Acosta Cruz/Offered periodically

SPANISH 242 THE LATIN AMERICAN NOVEL/ LECTURE, DISCUSSION

Readings and discussions of selected works by contemporary Latin American novelists, emphasizing technical innovations in relation to social and political thematics. Critical, historical, and cultural material provides a context for the creative surge reflected in 20th-century narrative practice. Authors include García Márquez, Cortázar, Puig, Fuentes, Bombal, and Mastretta. Prerequisite: Spanish 131 or permission. Ms. D'Lugo/Offered periodically

SPANISH 243 LATIN AMERICAN ESSAY AND THOUGHT/LECTURE, DISCUSSION

Overviews history and development of Latin American culture of 19th and 20th centuries. Explores ways Latin American writers define Latin America, and how they have differentiated its culture from traditional European thought. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Ms. Acosta Cruz, Mr. Ferguson/Offered periodically

SPANISH 245 HISPANIC AMERICAN SHORT STORY/LECTURE, DISCUSSION

Introduces the tradition and development of short narrative in Hispanic America, from its beginnings in colonial chroniclers through the progressive refinements of theme, local color, style, and narrative technique that led to fictions of the 20th-century "boom" and beyond. Readings include works by Rubén Darío,

Horacio Quiroga, José Luis Borges, Carlos Fuentes, Julio Cortázar, Juan Rulfo, Rosario Ferré, Luisa Valenzuela. Conducted in Spanish. Prerequisite: Spanish 131 or permission.
Mr. Ferguson, Ms. D'Lugo/Offered periodically

SPANISH 246 STUDIES IN SPANISH CINEMA/ LECTURE, DISCUSSION

Surveys principal Spanish films and filmmakers of the past 50 years in the context of political and social change in Spain. Considers formulation of cultural ideology through franquista cinema in the 1940s and rise of opposition cinema 1950-1975, operations of film censorship, rise of regional film cultures in post-Franco Spain, and auteurism and national/international audiences of Spanish cinema. Topics vary each time the course is offered. Conducted in English; Spanish major credit available.
Mr. D'Lugo/Offered periodically

SPANISH 248 STUDIES IN LATIN AMERICAN CINEMA/LECTURE, DISCUSSION

Surveys film cultures, directors, and works in Latin America, emphasizing developments in Argentina, Brazil, Cuba, and Mexico. Examines politics of representation, cultural nationalism in Latin American cinema, issues of authorship, and alternative film practices in Third World cinema. Conducted in English; Spanish major credit available. Mr. D'Lugo/ Offered periodically

SPANISH 249 STUDIES IN HISPANIC CINEMAS/ SEMINAR

Provides students who have already completed Spanish 246 or 248 the opportunity to further explore development of film and film culture in Spain or Spanish America. Topics vary each time the course is offered. Sample topics from Spanish cinema include: Spanish and foreign constructions of national identity; narratives of female empowerment; selected film auteurs (Almodóvar, Borau, Buñuel, Saura). Sample topics from Latin American cinemas include: race, gender and ethnicity in various Latin American cultures; cinema as political intervention; selected film auteurs (Tomás G. Alea in Cuba, Emilio "Indio" Fernández in Mexico, Fernando Solanas in Argentina). Topic for Spring 1999: Latino Cinemas. Mr. D'Lugo/ Offered periodically

SPANISH 260 THE AGE OF CERVANTES/ LECTURE, DISCUSSION

Introduces Spanish literature and society in the Golden Age, from the era of Catholic monarchs to the death of Cervantes and beyond. Examines works in a variety of genres, tracing development of Spanish imagination from the flowering of Renaissance humanism through the Counter-Reformation and the birth of the baroque, a profile of brilliance and despair that characterizes Spain in these imperial centuries. Conducted in Spanish. Prerequisite: Spanish 131 or permission.
Mr. Ferguson/Offered periodically

SPANISH 299 SEC. 7 ADVANCED TOPICS/ SEMINAR

Close readings and discussion of representative works by major Hispanic writers. A required capstone course for senior majors. Variable topics for 1998-2000. Conducted in Spanish. Ms. D'Lugo, Mr. D'Lugo, Ms. Acosta Cruz, Mr. Ferguson/Offered every year

GEOGRAPHY

Graduate School of Geography Faculty

David P. Angel, Ph.D., *associate provost and dean of graduate studies: urban-economic geography*
Martyn J. Bowden, Ph.D.: *cultural humanistic and historical/urban/social geography*
J. Ronald Eastman, Ph.D., *director: geographic information systems, remote sensing, cartography*
Jacque L. Emel, Ph.D.: *resource/environmental geography, feminist theory*
Susan Hanson, Ph.D.: *urban/social geography, transportation, research methods, geography and gender*
Stanley R. Herwitz, Ph.D.: *biogeography, forest hydrology, watershed ecology, paleoecology*
Douglas L. Johnson, Ph.D.: *cultural ecology, arid lands management, land degradation, geography of the Middle East and North Africa, pastoral nomadism*
Roger E. Kasperson, Ph.D.: *hazards, global change, environment and society*
Laurence A. Lewis, Ph.D.: *land degradation, geomorphology, tropical agriculture*

Robert Cameron Mitchell, Ph.D.: *environment and society, risk perception, survey research methodology*
Richard Peet, Ph.D.: *political economy of development, social theory, geography of consciousness and rationality*
Samuel J. Ratick, Ph.D.: *hazards, global change, environment and public policy, modeling, quantitative methods*
Dianne E. Rocheleau, Ph.D.: *political ecology, cultural/systems ecology, gender, forestry, agriculture and land use, environment/development*
Basil G. Savitsky, Ph.D.: *GIS, remote sensing, technology transfer, biodiversity mapping*
Henry J. Steward, Ph.D.: *cartography, remote sensing, history of the mapping sciences*
B.L. Turner II, Ph.D.: *human-environment relationships, global change, small holder and tropical land use*

Affiliate Faculty

Leonard Berry, Ph.D.
Robert W. Kates, Ph.D.

Staff

Anne Gibson, Ph.D., *manager: cartography and information graphics service, lecturer in geography*
Beverly Presley, A.M.L.S.: *map and geography librarian*

Emeriti

Gerald J. Karaska, Ph.D.
Duane S. Knos, Ph.D.
William A. Koelsch, Ph.D.

For the latest programmatic information, please see geography's web site (www.clarku.edu/departments/geography).

The Graduate School of Geography, established in 1921, is the oldest doctoral-granting geography department in the United States, and is consistently ranked among the elite programs in North America. The school also offers an undergraduate major which, for more than a decade, "Rugg's Recommendations on the Colleges" has identified as the best undergraduate geography major in America. The program emphasizes individual attention through close student-teacher relationships. The School also welcomes non-majors.

Geography faculty and graduate students engage the four realms of the discipline: nature-society relationships; space-society relationships; biophysical dynamics; and mapping sciences and spatial analysis. They conduct research on such issues as land use and environmental change, resource management institutions, rainforest canopy dynamics, gender issues across urban and rural locales, risk-hazard studies, and geographic education throughout the world.

The School is closely linked to Clark's George Perkins Marsh Institute, a center of collaborative, interdisciplinary research on human-environment relationships and environment and development. The Institute specializes in research on environmental risk and hazards, the human dimensions of global environmental change, regional and participatory development, and GIS applications. The Institute comprises three research centers and a research library.

The Center for Technology, Environment, and Development (CENTED), internationally recognized for its work on environmental risk and hazards, is home to the Greening of Industry Network, and examines land-use/cover change in various cooperative ventures, such as its links to Carnegie Mellon University's Center for Integrated Assessment. The Clark Labs for Cartographic Technologies and Geographic Analysis, home of the Idrisi GIS software, focus on remotely sensed data and geographical information systems for analysis to solve resource and environmental problems. The Center for Community Based Development (CCBD) addresses participatory and gender themes in development. Individual center and pan-Institute research is carried out worldwide with major efforts ongoing in Latin America, Africa, Asia, and Europe, as well as North America. Funded research in the Institute supports many geography graduate students.

The Marsh Institute Library houses some of the most extensive American research collections on global environmental change and on natural and technological hazards. In addition, more than 25,000 volumes and reports, 750 journals and newsletters, and various special collections cover the topics of technology, international development, water resources, and energy.

Undergraduate Program

Students can opt to pursue a geography major or a geography minor. Faculty work closely with each student in tailoring individualized programs; advising is therefore centrally important, and students thinking of pursuing a major or minor in geography should contact the undergraduate faculty advisor (please call 508/793-7336 or write to the geography office for further information). The department encourages students to spend at least one semester studying abroad, which should be planned with an advisor.

At the center of each student's geography program, whether a major or a minor, is a written learning plan, developed in collaboration with the student's faculty advisor; the learning plan describes the student's goals for study, organizing questions, and ways that individual course choices relate to the overall plan.

The major emphasizes broad education in the field of geography, specialization within an area of interest to the student, and the development of a variety of skills. The guiding philosophy of the geography major is to contribute to the overall goal of a Clark education: to lay the foundation for life-long learning. To that end the major has four components:

Core courses emphasize core geographic concepts and ways of creating knowledge and building frameworks for understanding the world. *Skills courses* provide students with the opportunity to acquire and apply skills for generating and interpreting knowledge. *Specialization courses* give students an opportunity to explore a specific subject area in depth. The *capstone course* offers students the opportunity to apply what they've learned in the major to a specific problem area. Many geography courses involve students actively in research projects or in hands-on problem solving activities.

Major Requirements

The Core. Majors will take one course in each of the following four core areas of geographic knowledge. Core courses address fundamental questions and ways of knowing in geographic core areas. Core courses are often prerequisites for 200-level courses in geography. The core areas and the central questions they address are:

Nature-society

How have societies used, shaped, and constructed nature? What are the impacts of various societies, economies, and cultures on ecological systems?

Core courses in nature-society:

017 Culture, Place, and the Environment
040 Technology and Social Controversy
105 Keeping of Animals: Patterns of Use and Abuse
126 Living in the Material World: The Political Geography of Resource Development
132 Before and After Columbus: Ancient Middle America and the Impact of the Conquest
136 Gender, Space, and Environment
147 Critical Environmental Situations: Global and Local Perspectives
179 International Political Ecology
Environmental Sciences(ES)180 The Earth Transformed
184 Landscapes of the Middle East

Society and Space

How have space and location shaped economic, social, political, and cultural life? How have economic, social, political, and cultural activities shaped space and location? How is globalization changing these processes?

Core courses in society and space:

016 Introduction to International Economies
030 Immigrants and the City: The World Comes to Worcester
127 Political Economy of Third World Underdevelopment
142 Cities and Culture: The American City
170 Divided Cities/Connected Lives
196 Culture and Sport

Earth Sciences

How does the geosphere interact with the hydrosphere, atmosphere, and biosphere?

Core courses in earth sciences:

014 Introduction to Physical Geography
075 Land Degradation and Sustainability
114 Intermediate Geomorphology
118 Environment and Disasters
Environmental Sciences (ES)121 Earth System Science

Visualization/Mapping Sciences

How is the spatiality of the world perceived, analyzed, and presented?

Core courses in visualization/mapping sciences:

085 Introduction to the Mapping Sciences

With the approval from the chair of the Undergraduate Studies Committee in geography, students may take a 200-level course to fulfill the core requirement.

Skills. Our goal is for students to become critical thinkers and to have an understanding of how knowledge is created. Every geography course builds skills, but the following courses focus on building particular skills. A two-semester linchpin sequence on research methods is required of all majors:

Geography 141 Research Skills emphasizes research design and methods of data collection. This course should be taken as early as possible in the geography major; it is a prerequisite for Geography 144

Geography 144 Research Applications focuses on conducting original research in a class setting. Students will carry out research projects. Students should complete Research Skills and Research Applications before taking 200-level courses in geography (or they may take Research Applications in the same semester as their first 200-level course).

Two additional skills courses particular to the student's specialization are also required.

Geography skills courses:

110 Computer and Quantitative Methods in Geography: Introduction
181 Introduction to Cartographic Design
189 Introduction to Remote Sensing and Geographic Imagery
190 Introduction to GIS
247 Computer and Quantitative Methods in Geography: Intermediate
292 Digital Cartographic Production Technology
293 Digital Image Processing
298 Field Sampling Methods

There may be some instances when a course, normally designated as a skill, may be offered as a core course. This may only be done with the agreement of the student's advisor and cannot, in any circumstances be double counted as both a skill and a core course.

Specialization. Each student will design a four-course specialization in consultation with the faculty advisor; at least two of the specialization courses must be at the 200 level. In designing and naming the specialization, the student will construct, in collaboration with the advisor, a written learning plan that outlines the student's educational goals, specifies the organizing questions of the specialization, and articulates the ways that the student's individual course choices relate to the educational plan. The four courses in the specialization must have some grounds for coherence. Students are expected to revise the learning plan periodically so that it becomes a record of the student's developing interests and commitments.

In general, the core courses and the two-semester research methods sequence (Research Skills and Research Applications) are prerequisites for taking the specialization courses, which focus on giving students the chance to apply skills in research and problem solving. The Geography Department encourages students to take internships; these normally count as 200-level courses and are usually considered part of the student's specialization.

Specialization courses in geography:

- 200 Land Degradation
- 204 Watershed Ecology
- Environmental Sciences (ES) 211 Resources and Environment: Perception and Use
- Environmental Sciences (ES) 212 Environmental Policy and Management
- 217 History of Cartography
- 218 Seminar in Physical Environment and Development
- 226 Seminar: Environmental Hazards Theory, Models and Applications
- 228 Management of Arid Lands
- 230 Conservation Geography
- 237 Feminism, Nature, and Culture
- 240 End of America: Los Angeles
- 242 Cities and Culture: The European City
- 244 Gender, Work, and Space
- 253 New England Landscape
- 254 Car Trouble? Transportation, Environment, and the American Dream
- 258 Utopian Visions, Urban Realities: Planning Cities for the 21st Century
- 262 Urban Economic Geography
- 268 Anthrogeography
- 270 Geology of Oceanic Islands
- 271 Groundwater Hydrology and Management
- 277 Gender, Environment, and Development
- 280 Urban Ecology: Cities as Ecosystems
- 281 Tropical Ecology
- 294 Seminar in Cartography
- 297 GIS and Local Planning

Capstone Course. The capstone seminar gives students the chance to apply what they have learned in the major and further develop their research, thinking, and writing skills in the context of a particular topic area. The department will offer two or three capstone seminars each year; juniors must sign up in April of their junior year for their capstone seminar of choice.

The following capstone courses will be offered during 1998/99:

- 224 Economy and Environment (Fall)
- 289 Advanced Development Theory (Spring)

Honors Program

The Honors Program gives students the opportunity to conduct independent research on a topic of particular interest. Geography Honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade point average of 3.25 overall and 3.5 in the geography major and can demonstrate the appropriate research background to undertake independent geographic research.

To graduate with honors a student must successfully complete a two-semester independent honors project conducted under the supervision of a faculty member. A student must declare her/his intention to register for honors work no later than the end of spring semester of the junior year (for work to be completed during the senior year). A student can carry out honors work during any two of the last three semesters of the program (either during the second semester of the junior year and first semester of the senior year, or during the senior year). Successful completion of an honors project will be recognized at Commencement.

Graduate Program

The Graduate School of Geography has awarded more doctorate degrees than any other program in the United States. Students are not accepted for master's studies only, although many choose to earn that degree en route to their doctorate. The M.A. is also available to those who leave the program early. For information on the M.A. in Geographic Information Systems and International Development, see below.

Applicants with or without prior training in geography are welcome. Depending on their concentrations, students may be required to improve their knowledge of geography, cartography, quantitative methods, or research methods. Graduate Record Examination scores (verbal, quantitative, and analytical) are required of all American and Canadian students. TOEFL scores or results of another English proficiency test are required for students from countries in which English is not the first language. The deadline for graduate applications is January 15th. All applicants receive careful consideration from a faculty-student admissions committee, which meets early in the spring semester to evaluate candidates. For further information and application materials, please contact the Graduate Admissions Secretary in writing, by telephone: (508) 793-7337/7336, fax: (508) 793-8881; or e-mail: geography@clarku.edu.

Doctoral Program Requirements

Applicants should request a copy of current guidelines and degree requirements from the Graduate Admissions Secretary (see above).

The graduate curriculum provides an opportunity for students to pursue studies across the full array of geography: human geography (space-society), human-environment geography (nature-society), biophysical geography, and the mapping sciences. Students are encouraged to explore faculty and research interests across these geographies in combination with work in complementary fields and disciplines within and outside of Clark.

Requirements include 16 course credits (eight for those entering with an M.A.); satisfactory completion of doctoral examinations; fulfillment of a skills requirement; and completion, acceptance, and successful defense of a dissertation. Also required are three years of residence (or two and one-half for those entering with an M.A. in geography). The normal course load is three courses per semester. The usual sequence students follow is: coursework, doctoral exam, research proposal, and dissertation research, write up, and defense.

In the first year, students normally complete the two required courses, Geography 318 Explanation in Geography and Geography 368 The Development of Western Geographic Thought, and take additional courses to help refine their interests. Students then meet with advisors for evaluation and planning.

In the second year, students are encouraged to fulfill the skills requirement, to prepare for doctoral exams, and to begin dissertation proposal formulation. Course work normally includes seminars, directed readings, and directed research. A review of the student's progress is held at the end of the year.

Students who have not already completed their doctoral exams and dissertation proposal are expected to do so in the third year of study.

Students must demonstrate, through course work or examination, proficiency in two of the following areas: multivariate statistics, research design/research methods, computer programming, geographic information systems, foreign language, or cultural-historical methods.

The doctoral exam assesses the competency of a graduate student in one major and two minor fields. Competency is defined as an understanding of the substantive content and range of theoretical approaches within each subfield. Students must be able to critique the alternative research traditions and defend the theoretical frameworks they adopt. They are expected to have in-depth knowledge of the major field, to master a survey of the first minor field, and to demonstrate detailed knowledge of a single subfield in the second minor.

The doctoral examination is conducted orally. The examination in the major field lasts approximately one and a half hours, and each minor takes about 45 minutes. At the student's discretion, the major and/or first minor may have a written component, which is in addition to the oral examination.

A formal proposal for dissertation work must be completed and approved by a committee of at least four faculty, one of whom is from outside the School. The proposal is approved after a formal defense before the committee.

The process of conducting and writing up the dissertation research involves close interaction between student and committee members. After extensive criticism and rewriting, a draft thesis is defended at a working session of the committee. A final version incorporating changes suggested at the draft stage is submitted for approval by the dissertation committee. At the discretion of the committee, the director and the student, a public presentation and dissertation signing ceremony may be scheduled.

M.A. in Geographic Information Systems and International Development

The International Development Program and the Graduate School of Geography offer this specialized degree for early and mid-career professionals with responsibilities in mapping, environmental database development, resource management, planning, and policy implementation and monitoring. The 12-month time frame enables professionals to take a one-year leave of absence to complete the degree. The program is technically oriented with an emphasis on the development of the higher-level skills required of the practicing GIS analyst. For further information, please contact the International Development Program: telephone: (508) 793-7201; fax: (508) 793-8820; e-mail: id@clarku.edu.

Distinctive Features

Office, study, and research facilities include three earth science and geographic information systems (GIS) laboratories, a soils lab and herbarium, the Map Library, a reserve library, a cartographic productions lab, and work, lounge, and personal computing rooms for graduate students.

Founded in 1921, the Guy H. Burnham Map and Aerial Photograph Library is an active cartographic information center. The collection contains 230,000 maps, imagery, digital data, GIS and mapping software, atlases, journals, globes, reference materials, and tourist information. As a depository for the U.S. Government Printing Office, the Map Library houses a full array of maps and electronic products published by the federal government. For the latest Map Library information, visit our web site (maplib.clarku.edu).

The J.K. Wright Reading Room and the Libbey Seminar Room contain regularly updated publications in the field of geography and subscriptions to geography journals. These facilities serve as a reserve library/reading room for many geography courses. Also see Marsh Library above.

The Graduate Resource Lab supports the GIS master's program and geography students using geoprocessing in their research. The Lab contains nine Pentium chip PC's, two large-format digitizers, several printers including one large format ink jet, a color scanner, and several data storage devices. The PCs are equipped with the NT operating system. Available software includes Idrisi, Arc/Info, ArcView, Maptitude, MapInfo, Spans Explorer, ER Mapper, and many others for statistics, database management, and graphics production.

CoFER (Computer Facility for Environmental Research) is a new facility created by gifts from the Culpeper and Keck Foundations. It supports research in Geography, the Marsh Institute, and the Environmental School requiring large data sets and advanced computer-based analyses. The lab has a Digital Prioris MX Pentium II 266 MHz server capable of handling a large number of clients. Additional hardware includes Pentium II computers and other data input and output peripherals.

The Geography Computer Lab is primarily a teaching lab for such courses as GIS, automated cartography, statistics, and physical geography. The lab has 12 PC's and several printers and digitizers. Idrisi is available, as are spreadsheet, statistical analysis, the internet, and other geographically pertinent software.

The School also affords students access to Clark Labs and the Idrisi (GIS) Project, complete with a suite of hardware and data connections directed to the use of GIS and remote sensing (See Marsh Institute above). The Idrisi GIS software, developed by Ronald Eastman, is produced here and is used by the United Nations and more than 15,000 users worldwide.

The Clark University Cartography and Information Graphics Service, staffed by a resident cartographer, produces maps and other information graphics for publication. All graphics are created in digital format using Macintosh computers and graphic design/desktop publishing software. The Service is also equipped with a gray-scale scanner and color postscript printer.

The School houses a geological collection and vascular plant herbarium. It also supports, in cooperation with other units, the Environmental School Research Station based at the Tower Hill Botanic Garden in the Wachusett Reservoir watershed. The Station is equipped with continuously recording meteorological instrumentation and in the near future, will be electronically connected to the Environmental Monitoring Lab. Research at this site is complemented by the School's soil lab. Students have used these facilities to quantify snowmelt dynamics and evaporation losses from forest cover.

Publications/Reports

A professional journal, Economic Geography, is edited by Susan Hanson and Richard Peet. Founded at Clark University in 1925, it is the only journal published in English that specializes in economic geography. The journal has a worldwide distribution.

The Geography Newsletter is published regularly for undergraduates and the Monadnock Newsletter is the School's alumni publication. The CENTED and Marsh Institute publication series includes work by numerous members of Geography. The Environmental School Research Station reports forest and soil hydraulic inventories to the MDC (Massachusett Metropolitan District Commission) Division of Watershed Management. The data provided is used to assist with their forest management decisions in the Wachusett watershed.

Student Organizations

Undergraduates are served by the Geographical Student Organization (GSO) and Gamma Theta Upsilon (GTU), a geographic honors organization. Clark University Geographical Society (CUGS) serves the graduate students.

Courses

014 INTRODUCTION TO PHYSICAL GEOGRAPHY/LECTURE, LABORATORY

A basic inquiry into the principles and components of landforms and climates. Provides background for evaluating environmental problems, including the role of human activities on physical processes. A science perspective (SP) course. Mr. Lewis/Offered every year

016 INTRODUCTION TO INTERNATIONAL ECONOMIES/LECTURE

Using a global systems approach, this course surveys the pre-capitalist world, outlines the historical emergence of the world capitalist system, and examines contemporary processes of development and underdevelopment. It surveys critical features of the world such as multinational corporations, Fordism, post-Fordism, changing regional systems, environmental problems, and the emergence of global culture. A comparative perspective (CP) course. Mr. Peet/Offered every year

017 CULTURE, PLACE, AND THE ENVIRONMENT/LECTURE

Ecological and historical approach to cultures and cultural change in a spatial context. Broad themes and problems of North America: adaptation to "natural" environment; culture in prehistory; migration; creation of cultural areas; world views of primitive, traditional, and industrial culture; cultural landscape; cultural geography of the U.S. One weekly discussion section. A comparative perspective (CP) course. Mr. Johnson, Mr. Bowden/Offered every year

030 IMMIGRANTS AND THE CITY: THE WORLD COMES TO WORCESTER/FIRST-YEAR SEMINAR

Like many American cities Worcester has long been a city of immigrants. Are current U.S. immigration patterns fundamentally different from those of the past? Where do immigrants to the U.S. come from now, why do they come, and how do they affect—and how are they affected by—the economic, social, and political life of the communities in which they settle? The course focuses on questions like these and examines immigration to Worcester and other U.S. cities in the context of the current national debate about immigration. A central theme is how global processes occur at many geographic scales, from the local neighborhood to the entire world. A comparative perspective (CP) course. Ms. Hanson/Offered every other year

040 TECHNOLOGY AND SOCIAL CONTROVERSY/LECTURE, DISCUSSION

Examines the challenges in managing technology in post-industrial society and the interaction between technological controversies and social and political institutions. Considers such technological controversies as the rise and fall of nuclear power, the growth of the internet, technology and the global food supply, pesticides, and global communication systems in a culturally diverse world. Particular attention will be given to means for reconciling technological advances with democratic society and for negotiating value disputes. A Values Perspectives (VP) course. Mr. Kasperson/ Offered periodically

075 LAND DEGRADATION AND SUSTAINABILITY/FIRST-YEAR SEMINAR

Examines land degradation both through time (i.e., the ecological transition—the degree to which human societies now influence and alter natural systems) and between cultures. Land degradation began with the control of fire, and increases in magnitude and areal extent with the agricultural revolution, industrialization, and the technological period. Land degradation also is investigated in the context of low, moderate, and high intensity systems (i.e., impacts of grazing in the Sahel vs. West Texas). A comparative perspective (CP) course. Mr. Lewis/Offered periodically

085 INTRODUCTION TO THE MAPPING SCIENCES/LECTURE, LABORATORY

Introduces mapping sciences in relation to geography. Covers geodesy, surveying, cartography, airphoto interpretation, photogrammetry, remote sensing, and geographical information systems. The topics are studied separately and as integral elements in the emerging field of spatial information systems. For first-year students, majors and non-majors. A science perspective (SP) course. Mr. Steward/Offered every year

105 KEEPING OF ANIMALS: PATTERNS OF USE AND ABUSE/LECTURE, DISCUSSION

Animals play a prominent role in human life. They sustain us, entertain us, and provide companionship and solace. Pests and predators compete with humans for food, while harmful diseases lurk unseen in animal reservoirs. Images of goodness and evil reflect the ambivalent attitudes and cultural prejudices that govern human responses to animals. This course explores the cultural, historical, and ecological interactions between people and animals. Balances utilitarian and ethical perspectives on current patterns of animal use and abuse. A comparative perspective (CP) course. Mr. Johnson/Offered every other year

110 COMPUTER AND QUANTITATIVE METHODS IN GEOGRAPHY: INTRODUCTION/LECTURE

Introduces the role of the computer in geographic analysis. Considers data sampling and descriptive and inferential statistical techniques for analyzing geographic data. Includes graphic techniques, tests of hypotheses, simple regression, and the analysis of variance. Students use computer programs for statistical analysis. Although no prior exposure to computers or statistics is assumed, the course is suitable for students of all levels and is one for which graduate students may receive credit. A skills course for geography majors. A formal analysis (FA) course. Staff/Offered every year

114 INTERMEDIATE GEOMORPHOLOGY/LECTURE

Examines the processes resulting in landform diversity. Emphasizes fluvial processes and climate/landform relations. Prerequisite: Geography 014 or permission of instructor. Mr. Lewis/Offered every other year

118 ENVIRONMENT AND DISASTERS/LECTURE

Examines basic concepts and processes within the earth sciences, relative to the evaluation of risks and decisions on future policies of land use and resource utilization. Emphasizes aspects of the environment of particular interest to geographers, geologists, and planners. Prerequisite: Geography 014 or permission of instructor. Staff/Offered every other year

126 LIVING IN THE MATERIAL WORLD: THE POLITICAL GEOGRAPHY OF RESOURCE DEVELOPMENT/LECTURE, DISCUSSION

Focuses on institutions that govern the development, allocation, and use of natural resources like water, minerals, trees, and animals. Emphasizes approaches used by geographers to study natural resources. Case studies provide an opportunity to examine differences between societies (or economies) and between specific resource issues. Water in the western U.S., Israel, or India; gold in Ghana, the U.S., and South Africa; and animal use in India, Great Britain, and China are some examples of typical cases. A comparative perspective (CP) course. Ms. Emel/Offered every other year

127 POLITICAL ECONOMY OF THIRD WORLD UNDERDEVELOPMENT/LECTURE

Surveys leading development theories: environmental determinism, modernization theory, dependency/world systems theory, and Marxist theories. Considers the postmodern critique of development. A comparative perspective (CP) course. Mr. Peet/Offered every year

132 BEFORE AND AFTER COLUMBUS: ANCIENT MIDDLE AMERICA AND THE IMPACT OF THE CONQUEST/LECTURE

What were the human-environment conditions and dynamics in Middle America (Caribbean, Central America, Mexico) previous to, and since, 1492? Approaches these questions from archaeology, history, and environmental studies, placing them within cultural ecology perspectives. Mr. Turner/Offered periodically

136 GENDER, SPACE, AND ENVIRONMENT/LECTURE, DISCUSSION

Explores how gender is reflected in the landscape, in our settlement and land use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use, and control of space and resources in environments —past, present, and possible. Regional focus on New England. A comparative perspective (CP) course. Ms. Rocheleau/Offered every year

141 RESEARCH METHODS IN GEOGRAPHY/LECTURE, DISCUSSION

Focuses on ways empirical social science research is conducted. Students study problems, methodological strategies, and analytical techniques characteristic of current social geographical research. Includes defining a research problem, measurement, sampling, research design, analysis, and writing the report. A required skills course in the geography major. Mr. Mitchell, Staff/Offered every semester

142 CITIES AND CULTURE: THE AMERICAN CITY/LECTURE AND FIELD TRIP

Studies development of distinct subcultures in America and in cultural capitals. Emphasizes expression of culture in Boston, Philadelphia, New York, Chicago, San Francisco, and Los Angeles, and in distinctive regional cultural capitals of Charleston, Salt Lake City, Santa Fe, and New Orleans. Mr. Bowden/Offered every year

144 RESEARCH APPLICATIONS/LECTURE, DISCUSSION

Extends the theory of research methods taught in Geography 141 and other classes into applied practice. Students identify a real world problem, collect data, write a publishable quality analysis, and present research results orally. Typically research projects are linked to Clark's CoFER (Computer Facility for Environmental Research) and focus research on the Blackstone Valley (water resource management historic preservation), eastern Worcester County (urban planning and land use problems on the suburban fringe of greater Boston), northern and western Worcester County (farming and open space issues), and Worcester itself (especially Main South). The course features small group research teams and stresses practical applications of geographic theory, content, and research skills. Prerequisite: Geography 141. A required skills course in the geography major. Mr. Johnson, Mr. Lewis/Offered every semester

147 CRITICAL ENVIRONMENTAL SITUATIONS: GLOBAL AND LOCAL PERSPECTIVES/LECTURE, DISCUSSION

Examines major human activities driving changes in the global environment, such as population growth, urbanization, technology, and the global economy. Considers the effects of such changes on critical situations in such regions and places as the Sahel, the Everglades, the Aral Sea, Mexico City, and Amazonia. Draws larger lessons for post Earth Summit initiatives to build a more sustainable world. A comparative perspective (CP) course. Mr. Kasperson/Offered every year

170 DIVIDED CITIES, CONNECTED LIVES/LECTURE, DISCUSSION

Examines spatial patterns of social groups in American cities and considers how these patterns are maintained or changed over time. Considers how these patterns affect functioning of cities, provision of social services and social change, as well as how they divide and unite different cultural groups. A comparative perspective (CP) course. Ms. Hanson/Offered every other year

179 INTERNATIONAL POLITICAL ECOLOGY/LECTURE, DISCUSSION

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental "hot spots," following links to world economy and planetary ecosystems. Explores connections of international environmental and economic policy with everyday realities and possible ecological futures of people from the Amazon rainforest to the streets of Worcester. Offered as a first-year seminar (fulfills the comparative perspective (CP) and verbal expression (VE) requirements), and as a lecture course (fulfills the comparative perspective (CP) course requirement) alternate years. Ms. Rocheleau/Offered every year

181 INTRODUCTION TO CARTOGRAPHIC DESIGN/LECTURE, LABORATORY

Introduces fundamental principles of cartographic design. Emphasizes the need to reconcile graphic representation with geographic description, on both intellectual and practical levels, for the map-user. Ranges from concepts of space and spatial representation to information handling techniques and the perceptional basis of graphic communication. A skills course in the geography major. Mr. Steward/Offered every year

184 LANDSCAPES OF THE MIDDLE EAST/LECTURE, SEMINAR

An array of landscapes, economies, and cultures comprise the Middle Eastern culture realm. Studies modernization and transformation of traditional Islamic and non-Islamic life and livelihood in the Middle Eastern cultural mosaic. Literature and ethnographic description supplement geographic analysis. Mr. Johnson/Offered every other year

189 INTRODUCTION TO REMOTE SENSING AND GEOGRAPHIC IMAGERY/LECTURE, LABORATORY

Introduces a powerful methodology for surveying and analyzing geographical phenomena. Examines aerial photography and satellite imagery and their analysis for interpreting, understanding, and representing the environment. Includes image-mapping, photogrammetry, and field surveying. A skills course in the geography major. Mr. Steward/Offered every year

190 INTRODUCTION TO GIS/LECTURE, LABORATORY

Introduces GIS and associated techniques in digital image processing. Stresses fundamental logic and scope of problem solving using raster and vector systems. Although the course is computer-oriented, no programming is involved. Graduate students may receive credit for this course. A formal analysis (FA) course. A skills course in geography major. Mr. Eastman, Staff/Offered every Fall semester for undergraduate and graduate credit, and every Spring semester for undergraduate credit

196 CULTURE AND SPORT/LECTURE, DISCUSSION

Readings in humanities "texts," film, and social sciences frameworks explore track and field, boxing, cricket, baseball, soccer, rugby, football, basketball, hockey, and tennis. Includes the relation between game character and structure and their success among different groups of Americans; the timing of game adoption; explanations for the transformation of the games from British and early forms; and deviation of professional and amateur variants. The class period is extended occasionally for special events (e.g., films). Mr. Bowden/Offered every other year

200 LAND DEGRADATION/SEMINAR

Resource use often results in degradation of aquatic and terrestrial productivity. Roles of agriculture, deforestation, urbanization, and industrialization on land degradation problems are examined in a contemporary and a historical framework. Mr. Lewis, Mr. Johnson/Offered every other year

204 WATERSHED ECOLOGY/SEMINAR

Examines current scientific literature on the functional ecology and biogeochemistry of contrasting terrestrial ecosystems. Includes inputs, outputs, and internal transfers of water and nutrients in temperate hardwood forests, pine barrens, tropical rainforests, montane cloud forests, eucalypt woodlands, and arid environments. Emphasizes processes of rock weathering, leaching from above-ground vegetative surfaces, nutrient uptake by plants, atmospheric inputs, and stream discharge of nutrients. Mr. Herwitz/Offered every other year

217 HISTORY OF CARTOGRAPHY/SEMINAR

An introductory survey based on the idea of the map as a mirror of culture. Material ranges in place, time, and context, from the fragmentary records of ancient map-making and the impulses behind empires and exploration to the statecraft and complexities of the 20th century. Individuals, technologies, motivations, and historical settings are all examined. A historical perspectives (HP) course. Permission of instructor required. Mr. Steward/Offered every year

218 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world is changing more rapidly than at any time in history. This course reviews the patterns of change in the Third World, examines the role of environment and resource management in development, and allows students to develop their own in-depth case studies. Permission of instructor required. Mr. Lewis/Offered every other year

224 ECONOMY AND ENVIRONMENT/LECTURE, DISCUSSION

Addresses historic intersection of industrialization, urbanization, and ecology. Examines economic, environmental, and political conflict over the past 300 years to gain historic depth on contemporary issues. London air pollution, New York City water supplies, mechanized fishing in the Pacific, European coal mining, and American forestry product industries will be considered. Ms. Emel/Offered periodically

226 SEMINAR: ENVIRONMENTAL HAZARDS—THEORY, MODELS, AND APPLICATIONS/LECTURE, DISCUSSION

Theory and methods of hazard assessment and social response. Covers natural, technological, and global hazards and includes such topics as human vulnerability, disasters, public perceptions, social amplification of risk, social learning, and corporate management of risk. Mr. Kasperson/Offered every year

228 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR

The world's drylands present special development problems. Prone to degradation, they face the difficult task of providing support to a rapidly growing population. The history, demography, behavioral characteristics, social and livelihood systems, and physical constraints of dryland ecosystems are analyzed. Evaluates management strategies, identifying the obstacles constraining their growth, and assesses the future development and application potential of drylands. Mr. Johnson/Offered every other year

230 CONSERVATION GEOGRAPHY/LECTURE, SEMINAR

Examines spatial considerations associated with the management of protected areas. Policy options for and barriers to conservation of biological diversity are explored from global, international, national, and local perspectives. Mr. Savitsky/Offered periodically

237 FEMINISM, NATURE, AND CULTURE/SEMINAR

Studies feminist theories of science, rationality, and morality—particularly as they apply to nature-society relations. Examines cultural politics of "nature" across time and space. Film, literature, government reports, and academic writing show how images and "truths" about nature and society are constructed. Ms. Emel/Offered every other year

240 THE END OF AMERICA: LOS ANGELES/LECTURE, DISCUSSION

The modern city reflects the values and forces that have shaped Western culture in its westward course. Los Angeles—the western end of American space—provides a unique model for examination of the American cultural spirit. This course explores changing notions of the city and the American attitude toward the culture of cities through close examination of history, geography, literature, and film associated with Los Angeles. Mr. Bowden/Offered every other year

242 CITIES AND CULTURE: THE EUROPEAN CITY/LECTURE

Examines the city as a center of cultural stability and cultural change as reflected in urban form. Focuses on the city as a center of creativity. Includes London, Edinburgh, Paris, Vienna, and Manchester. Mr. Bowden/Offered every other year

244 GENDER, WORK, AND SPACE/SEMINAR

Examines how gender, race, class, and ethnicity divide the work force and how location and space shape and sustain such divisions. Evaluates competing explanations for why women, youths, and minorities hold jobs that differ distinctly from jobs held by other workers. Explores how a geographic understanding of gender, class, and ethnicity can help explain the current restructuring of the global economy. Ms. Hanson/Offered every other year

247 COMPUTER AND QUANTITATIVE METHODS IN GEOGRAPHY: INTERMEDIATE/LECTURE, LABORATORY

Continues development, begun in Geography 110 of computer-based methods in geographical analysis. Focuses on bivariate and multivariate regression, discriminant analysis, factor analysis, log-linear models, and analysis of spatial and temporal data. Includes lab work with PCs, spreadsheets, and SPSS-X statistical software package. Prerequisite: Geography 110. Meets skill requirement for geography majors and graduate students. Mr. Ratick/Offered every year

253 NEW ENGLAND LANDSCAPE/SEMINAR, FIELD TRIPS

Examines the idea of landscape within the geographic endeavor. Field and library work focuses on houses and buildings, fences, walls, land use, and settlement patterns that give character and distinctiveness to the "First Period" (to 1725); in the Yankee "folk-housing landscape" solution, and in the era of commercial villages, greens and mill villages. Five half-day field trips to the Central Uplands, Rhode Island, the North Shore, and to the Connecticut Valley. Three full-day field trips on Saturdays. Mr. Bowden/Offered every other year

254 CAR TROUBLE? TRANSPORTATION, ENVIRONMENT, AND THE AMERICAN DREAM/LECTURE, DISCUSSION

Mobility and access are essential to individuals and to urban areas, yet congestion and poor access remain serious problems. Examines urban transportation planning and evaluates proposals for solving transportation problems. Includes transportation and land use; energy, equity, and environmental issues; the almighty automobile; and the politics of urban transportation. Ms. Hanson/Offered every other year

258 UTOPIAN VISIONS, URBAN REALITIES: PLANNING CITIES FOR THE 21ST CENTURY/LECTURE, DISCUSSION

Although utopia literally means "no place," utopian thinking has always involved certain material expressions of daily living. The legacy of early urban utopian thinkers is evident in contemporary approaches to urban policy, including urban form and design, redevelopment, urban politics, and planning. In this course students will grapple with the ideals of urban planning in the context of the complexities of contemporary cities. Prerequisite: one course in the society and space core area in geography (e.g., 017, 030, 142, 170). Ms. Hanson/Offered every other year

262 URBAN ECONOMIC GEOGRAPHY/SEMINAR

The past two decades have been a period of particular vitality in development of theory, new perspectives, and alternative discourse about the city and the contemporary urban experience. This course examines recent developments in urban geography and details a political economy of urbanization in advanced capitalist societies. Staff/Offered every other year

268 ANTHROGEOGRAPHY/SEMINAR

Examines contemporary theoretical problems, such as postmodern theory, semiotics, and iconography. Mr. Peet/Offered every other year

270 GEOLOGY OF OCEANIC ISLANDS/RESEARCH

Field-oriented course on the geological history of Bermuda consisting of three parts: weekly meetings during the first half of the semester involving lectures, readings, and discussions; a one-week field and research experience in Bermuda during mid-term break; and presentation of research results during the second half of the semester. Prerequisite: Introduction to Geology or ES-121 Earth System Science. Mr. Herwitz/Offered every other year

271 GROUNDWATER HYDROLOGY AND MANAGEMENT/LECTURE, DISCUSSION

Introduces geological and hydrological factors controlling the occurrence and development of groundwater, and the methods and impacts of groundwater management. Ms. Emel/Offered periodically

277 GENDER, ENVIRONMENT, AND DEVELOPMENT/SEMINAR

Considers gendered identities, affinities, control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of natural resources. Readings, lectures, and discussion focus on the distinct perspectives and concerns of women and men as actors in natural resource use and management and in local, regional, and global ecological transformations. Ms. Rocheleau/Offered every year

280 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

Explores ecology and physical geography of cities as systems built, inhabited, and "managed" by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and to a surprising number of plant and animal species as well. Readings, lectures, discussion, and written work combine landscape and systems ecology with physical and urban geography to broaden our understanding of city environments, both present and possible. Ms. Rocheleau/Offered periodically

281 TROPICAL ECOLOGY/LECTURE, DISCUSSION

Examines structure and function of several major tropical ecosystems (rainforests, savannas, wetlands, coastal zones, deserts) from the perspective of systems ecology. Readings, lectures, and discussions focus on energy flows, material cycles, and species diversity and distribution. Explores pattern and process in tropical ecosystems (especially forests and savannas) under conditions of widespread land use change. Ms. Rocheleau/Offered every year

284 ENVIRONMENT AND DEVELOPMENT IN THE MIDDLE EAST AND NORTH AFRICA/LECTURE, DISCUSSION

From Afghanistan to Morocco, farmers, herders, and city dwellers have modified their environment in an effort to develop the region's resources. While many of these changes have been destructive, others have produced sustainable agricultural systems. Today population growth, infrequent zones of high agricultural potential, the constraints imposed by aridity, and limited mineral resources (except for oil) restrict development opportunities. The successes and failures that have followed from the efforts of Middle Eastern governments and societies to cope with these limitations and to control desertification, overgrazing, salinization, deforestation, and urban plight constitute the focus of this course. Prerequisite: any geography nature-society core course (e.g., 105, 184) or a comparable course in the Environmental School (e.g., ES 180) or in International Development, or by permission of instructor. Mr. Johnson/Offered every other year

289 ADVANCED DEVELOPMENT THEORY/SEMINAR

Assumes considerable background in development theory. Surveys recent changes in developmental thinking at an advanced level, focusing on the influence of postmodern social theory on discourses of development. Mr. Peet/Offered every year

292 DIGITAL CARTOGRAPHIC DESIGN AND PRODUCTION/LECTURE, LABORATORY

Studies production and design of full-color, publishable-quality maps using computer technology, with special attention paid to meeting the requirements for offset lithographic printing and web display. Students design and produce monochrome and full-color maps on computer using professional graphic design software. Prerequisite: Geography 085, 181 or 190, or permission of instructor. Mr. Eastman, Ms. Gibson/Offered every other year

293 DIGITAL IMAGE PROCESSING/LECTURE, LABORATORY

Develops a theoretical understanding and a technical proficiency with image analysis. Students perform image processing functions and are exposed to all critical phases of project implementation expected of an image analyst. Prerequsite: Geography 190. Mr. Savitsky/ Offered every year

294 SEMINAR IN CARTOGRAPHY/SEMINAR

Examines philosophical and practical concerns in both historical and contemporary mapping. Involves project work. Content changes from year to year. Permission of instructor required. Mr. Steward/Offered periodically

297 GIS AND LOCAL PLANNING/SEMINAR, PROJECT

Explores issues and procedures involved in the application of GIS to local government planning. Develops hands-on familiarity with the Arc/Info vector-based system, and its application in database development (data conversion), routine data management, and planning activities. Prerequisite: Geography 190 and permission. Staff/Offered every year

298 FIELD SAMPLING METHODS/LECTURE, LABORATORY

Provides field training with Global Positioning System (GPS) receivers, and integrates the three techniques of GPS, GIS and image analysis through local field exercises. Provides an overview of sampling statistics, aerial photo interpretation, accuracy assessment, and sampling methods in order to complete a GIS database development and mapping exercise. Prerequisites: Geography 190 and one of the following: 293, 297 or 397. Mr. Savitsky, Staff/Offered every year

300 ADVANCED TOPICS IN PHYSICAL GEOGRAPHY/SEMINAR

Graduate-level examination of theories and concepts of physical geography. Focuses on research interests of the faculty and students taking the course. Prerequisite: permission of instructor. Mr. Lewis/Offered periodically

304 SEMINAR ON WATERSHED ECOLOGY/SEMINAR

Examines current scientific literature on the functional ecology and biogeochemistry of contrasting terrestrial ecosystems. Includes inputs, outputs, and internal transfers of water and nutrients in temperate hardwood forests, pine barrens, tropical rainforests, montane cloud forests, eucalypt woodlands, and arid environments. Emphasizes processes of rock weathering, leaching from above-ground vegetative surfaces, nutrient uptake by plants, atmospheric inputs, and stream discharge of nutrients. Mr. Herwitz/Offered every other year

310 QUALITATIVE METHODS SEMINAR/WORKSHOP

For thesis- and dissertation-level students working in the areas of resources, development, ethno-ecology, social theory, and political economy in developing countries, who are developing proposals or pre-proposal research papers. Provides a forum for discussion, criticism, and practical advice. Emphasizes ethnographic approaches and qualitative field methods. Prerequisite: Geography 314 or permission of instructor. Meets graduate skills requirement in geography and international development. Ms. Rocheleau/Offered every other year

314 RESEARCH DESIGN, RESEARCH METHODS/SEMINAR

Covers major topics in empirical social research design and methodology, including problem definition, research strategies, measurement, sampling, data collection techniques and procedures, and proposal writing. Mr. Mitchell/Offered every year

318 EXPLANATION IN GEOGRAPHY/SEMINAR

Explores several views of explanation including positivist, existentialist, Marxist, feminist, and postmodernist. Focuses on tensions between structural and nonstructural explanation and the integration of theory and empirical facts. Meets first-year core course requirement for geography graduate students. Mr. Peet/Offered every year

327 GEOGRAPHY AND SOCIAL THEORY/SEMINAR

Explores major themes in contemporary social theories as these relate to geographical studies. Emphasizes existential phenomenology, Marxism, structuralism, feminism, and postmodern social theory. Mr. Peet/Offered every other year

330 SEMINAR IN CULTURAL AND POLITICAL ECOLOGY/SEMINAR

"Ecological transition," the increasing incorporation of nature into human culture, is the point of departure for an examination of the theory, method, and policy relevance of cultural ecology. Mr. Johnson, Mr. Turner/Offered periodically

335 FEMINIST GEOGRAPHY/SEMINAR

Explores the intersection of feminism and geography. Topics include feminist theory, epistemological questions in feminist geography, social movements, welfare politics and the state, and work. Ms. Hanson/Offered every other year

342 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: DRIVING FORCES/SEMINAR

Human-induced global environmental change has reached unprecedented magnitudes and now includes direct impacts on the biogeochemical flows that sustain the biosphere. Social science understanding of the human dimensions of this scale and kind of change is poorly developed, and the research agenda to address them is still emerging. This seminar explores the role of humankind as the driving force or source of global change. Emphasizes development of a framework that helps to identify these forces and to understand their role by situation (local/regional variability) and by spatial scale. Mr. Turner/Offered periodically

343 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: IMPACTS AND SOCIETAL RESPONSES/SEMINAR

Explores societal responses to global environmental change. Addresses impact analysis, adaptation vs. adjustment, surprise, vulnerability analysis, policy analysis, social learning, precautionary strategies, and national accounting systems. Mr. Kasperson/Offered every other year

350 NATURE, SOCIETY, AND TECHNOLOGY/SEMINAR

Examines theories and major research findings on the relationship between human societies and the natural environment. Mr. Mitchell/ Offered every other year

351 SEMINAR IN RESOURCE GEOGRAPHY: THEORY AND METHOD/SEMINAR

Examines theories and methods of resource estimation, allocation, and management, providing coverage of the scholarly literature of the field. Ms. Emel/Offered every other year

353 INTERNATIONAL POLITICAL ECOLOGY/LECTURE, DISCUSSION

Integrates theory and practice from cultural ecology, political economy, and ecological science, from local to global scale, based on readings and papers in social theory (feminist, structuralist, poststructuralist), policy, social/environmental movements, ecological paradigms, environmental management, sustainable development, and conservation. Reading, writing, and discussion combines theory and case studies ranging from rural, agrarian cases to urban, industrial contexts. Ms. Rocheleau/Offered every other year

368 COLLOQUIUM: THE DEVELOPMENT OF WESTERN GEOGRAPHIC THOUGHT/DISCUSSION

Examines principal orientations, themes, and debates within emergent professional geography communities in the 19th and 20th centuries and the professional structure of the field in research, educational, and applied contexts. Primarily for entering graduate students in geography. Mr. Turner/Offered every year

370 ANIMAL AGRICULTURE/LECTURE, DISCUSSION

Animals and humans have a long history of close association, and humans rely on animals for food, fiber, labor, and companionship. Animals play an important role in efforts to increase food production and to improve diet quality in support of a growing human population. Examines terrestrial and aquatic animal systems, and the theory and practice of their intensified exploitation. Mr. Johnson/Offered every other year

373 SEMINAR IN URBAN GEOGRAPHY/SEMINAR

Explores topics in contemporary urban geography. Prerequisite: permission of instructor. Ms. Hanson, Staff/Offered every other year

387 TECHNOLOGY TRANSFER AND DEVELOPMENT/SEMINAR

Investigates effectiveness of the transfer of technology (primarily GIS, GPS, remote sensing, and information networks) from the First to the Third World; analyzes the differential impact of these technologies on different social groups in the Third World; discusses ethical issues related to the transfer of technology; formulates approaches or solutions to overcome some of the problems identified with technology transfer. Staff/Offered periodically

389 RESEARCH THEMES IN GIS/LECTURE, DISCUSSION

Traces recent GIS history to identify major research themes. Primarily an exploration of research literature to prepare for Ph.D. oral examination in GIS. Prerequisite: permission of instructor. Mr. Eastman/Offered every year

393 GIS AND INTERNATIONAL DEVELOPMENT/SEMINAR

Required for M.A. in GIS and International Development. The Fall seminar provides an overview of international development themes. The Spring session focuses on a GIS research project development. The two summer sessions are dedicated to project analysis and presentation. Mr. Savitsky/Offered every semester

396 SEMINAR IN THE MAPPING SCIENCES/SEMINAR

Reconsiders the fundamental assumptions and actions underlying the mapping sciences in the light of recent/significant technological developments. Examines purposes behind mapping and the interlinking demands of data, design, structures, scale, generalization, aesthetics, information, and communication. Permission of instructor required. Mr. Steward/Offered periodically

397 ADVANCED TOPICS GIS/LECTURE, LABORATORY

Covers major research and application issues in GIS. Topics include geodesy, projections, change and time series analysis, error sources, assessment and propagation, analysis under conditions of uncertainty, and multi-criteria and multi-objective decision making. Prerequisite: Geography 190 and permission of instructor. Mr. Eastman/Offered every year

GOVERNMENT AND INTERNATIONAL RELATIONS

Department Faculty

John C. Blydenburgh, Ph.D., *chair: elections, polling, U.S. national politics, political psychology*

Brian J. Cook, Ph.D., *chair: U.S. public policy, public administration, environmental politics, bureaucratic politics*

Cynthia H. Enloe, Ph.D.: *women and politics, militarization, Asian politics, British politics, ethnic and racial politics*

Beverly C. Grier, Ph.D.: *African politics, international development, women's studies, U.S. black politics*

Bradley S. Klein, Ph.D.: *political theory, international relations, U.S. foreign policy, politics of the media*

Sharon Perlman Krefetz, Ph.D.: *U.S. urban politics, suburban politics, women and politics*

Mark C. Miller, J.D., Ph.D.: *American government, politics of law and the judiciary, Congressional politics, lawyers and politics*

Robert J. Vitalis, Ph.D.: *international relations, political economy, Middle East politics*

Affiliate Faculty

Douglas J. Little, Ph.D.

Robert J.S. Ross, Ph.D.

Barbara P. Thomas-Slayter, Ph.D.

Visiting Faculty

George M. Lane, M.A.: *U.S. foreign policy, arms control, Middle East politics, U.S.-European relations*

Valerie Sperling, Ph.D.: *Post-Soviet and East European politics, comparative politics, social movement and collective action, women's studies*

Undergraduate Program

The department explores some of the most important political questions that face people of all countries. Why are some governments effective and others not? What causes wars or solidifies peace? Can public policies affect relations between women and men, and between different racial groups? Most important, who decides such questions and how? The department offers courses that address these questions and others—in international relations, in American politics, and in comparative politics. The curriculum provides theories and concepts, relevant information, and tools for investigation for students to develop their own answers.

Major Requirements

The major provides a general introduction to the study of politics, and an opportunity to explore one particular subfield in greater depth, allowing students to concentrate in one area of politics. The three subfields are: American politics and public policy; comparative politics; and international relations. Students must take 14 courses total, with leeway choosing particular courses. Most courses are in the Government Department, but the few from other disciplines complement the study of politics and explore the relationships between government and other sectors of society. The 14 required courses—10 in government, one in economics, one in history, and two others from related disciplines—are divided into two categories.

General government requirements: seven courses, including one subfield introductory course (in addition to the introductory course in one's chosen subfield); the economics course, Econ 10 A Comparative Approach; one government course in normative political theory (Gov 155, 203, or 206); one course in research methods and skills, Gov 107; and three government courses from outside one's chosen subfield.

Subfield specialization requirements: seven courses, including the introductory course to one's chosen government subfield (Introduction to American Government, Introduction to Comparative Politics, or Introduction to International Relations); three additional government courses in one's chosen subfield (one of these three must be in the form of a seminar in one's subfield, taken in the junior or senior year); and three courses, related to the subfield, from outside the Government Department. (A list of related courses is available from the department office; one must be in History. The other two should be chosen with one's advisor.)

Subfield Descriptions

American Politics

The American Politics and Public Policy subfield includes study of basic political and governmental institutions, major political processes, and important patterns of political behavior. Subfield specialists become familiar with each of these three broad areas, learning how the political system operates, why public policy emphasizes particular values and allocates certain resources to different groups and individuals, and who benefits and who loses in policy outcomes in policy areas such as housing, the environment, and the economy. The federal structure of American government and the diversity of the American population also require familiarity with state politics, urban and suburban politics, law and politics, African-American politics, and women and politics.

Comparative Politics

Comparative politics has two intertwined meanings at Clark: 1) it means immersion in the study of politics in two or more countries other than the U.S., and 2), it means deliberately comparing important factors, such as elites or policy-making processes in two or more countries. Subfield specialists are given the chance to delve into politics experienced by elites and ordinary people inside other countries. While the U.S. is intentionally kept off center stage in comparative politics courses, most of them raise specific questions about American politics—its policies, experiences, and assumptions—as they are seen from the vantage point of people in other countries. The study of comparative politics alerts the specialist to the varieties but also the surprising similarities in how power is gained, and how it is justified and wielded in different countries.

International Relations

Government majors who specialize in international relations address global politics at two intersecting levels: 1) formal state-to-state behavior in terms of diplomacy, war and peace, intervention, law, and organization; and 2) translation of global interactions in terms of trade, development, social movements, refugees, human rights, ecology, and media. Subfield specialists engage in rigorous theoretical investigations of competing analytic traditions as they attempt to explain ongoing problems of world order. Some of these problems are local, such as boundary disputes; some are regional, such as regional economic integration; and some are global, such as poverty, the greenhouse effect, or militarization. Similarly, the actors in world politics are diverse: national governments, sub-national governments, international organizations, private interest groups, social classes, and religious movements.

Minor Requirements

The government minor requires a minimum of six courses within the department. One must be an introductory course (Govt 050, 069, or 070); one must be either in political theory (Govt 155, 203, or 206) or in research methods (Govt 107); and four others can be in any assortment of subfield areas (including two at the 200 level). An internship supervised by a Government faculty member, as well as approved political science courses taken as part of an accredited Study Abroad program, may count toward the minor.

Internships And Study Abroad

Internships in American local, state, and federal government agencies, in independent public interest groups, in private law firms, and in companies can earn students government major credit. Study abroad may also fulfill major requirements. To receive government major or minor credit, a student must work with his or her faculty advisor, or another faculty member in the department.

Honors In Government

Juniors with strong academic records may apply to the Honors Program which expands research and writing skills through an in-depth systematic analysis of one specific topic. Students can achieve honors by successfully completing the Honors Program, which involves researching, writing, and defending a senior thesis. Interested students should obtain guidelines in the department office and must submit applications by March 15 of the junior year.

Nonmajor Concentration

Certain fields of study can be taken as concentrations in addition to and complementary to the Government major. Some concentration requirements may also fulfill government major requirements. (See specific catalog sections on these concentrations.)

Student Handbook

The Government Department publishes a handbook, which has a more extensive description of major requirements, programs, courses, and faculty, as well as other information relevant to the major. Copies are available in the department office.

General Courses

102 First-year Seminar
107 Research Methods
155 Roots of Political Thought
202 Applications of Game Theory
203 Seminar: Political Theorists and Their Theories
206 Recent Political Theory
299.1 Directed Readings
299.2 Directed Research
299.5 Special Projects
299.8 Senior Honors Thesis in Government and International Relations
299.9 Internship

American Politics And Public Policy

050 Introduction to American Government
145 America and the Changing World Economy
154 The Politics of Public Policy in the U.S.

157 The Politics of Environmental Issues
170 American Political Thought and Behavior
172 Suburbia: People and Politics
175 Women and Politics
184 Politics and Markets
185 Politics of the Media
204 The American Presidency
209 The U.S. since 1945
213 Policy Analysis
215 State and Local Government and Politics
220 Urban Politics: People, Power, and Conflict in U.S. Cities
221 Seminar: Urban Policy Internship
223 Seminar: Suburban Policy Issues
224 African-American Politics in the U.S.
225 Seminar: History of African-American Women
248 Deception and Manipulation in Politics
251 Social Movements and Interest Groups
252 Political Parties
253 Judicial Politics
255 The Politics of Congress
272 U.S. Constitutional Law: Civil Liberties
273 U.S. Constitutional Law: Governmental Powers
276 Environmental Law
281 Seminar: The Politics of Public Management
282 Seminar: Housing Policies
291 Seminar: Lawyers and Politics
292 Seminar: Politics Inside Organizations
294 Seminar: Campaigns and Elections
297 Seminar: Advanced Topics in American Politics

Comparative Politics

070 Introduction to Comparative Politics
103 Africa and the World
112 Comparative Authoritarian Systems
117 Revolution and Political Violence
125 Development Problems
136 Sub-Saharan Africa: Issues and Problems
178 South Africa: History and Contemporary Politics
179 Comparative Foreign Policy
186 Upheaval in Eastern Europe
207 Seminar: Politics of Development: Africa, Asia, and Latin America
208 Comparative Politics of Women
218 Child Labor and the State: Comparative Perspective
219 Seminar: The Politics of Land: Kenya, Zimbabwe, and South Africa
228 Comparative Politics of Race, Ethnicity, and Gender
236 Politics of Vietnam and the Philippines
256 Politics of the Soviet Union and Its Successor States
257 Comparative Courts and Laws
261 Seminar: Women and Militarization in a Comparative Politics Perspective
265 Politics of Japan
286 Seminar: Advanced Topics in Comparative Politics
287 Politics and Power in Third World Societies

International Relations

069 Introduction to International Relations
103 Africa and the World
145 America and the Changing World Economy
147 Normative World Orders/Lecture, Discussion
179 Comparative Foreign Policy
210 Palestine, Israel, and the Israeli-Arab Conflict
227 Global Politics of Development
237 The Arab State System
238 U.S. Foreign Policy Since 1914
245 U.S. Foreign Policy—Eastern Mediterranean
246 The United States and the Persian Gulf
247 Seminar in Global Capitalism
250 U.S. Foreign Policy
280 Soviet Foreign Policy and Its Aftermath
285 Seminar: Special Topics in Peace Studies
289 Seminar: Advanced Topics in International Relations

Courses

050 INTRODUCTION TO AMERICAN GOVERNMENT/LECTURE, DISCUSSION

Introduces the American governmental system. Overviews contemporary structure, operation and performance of national institutions. Addresses American political culture, voting and elections, the evolution of federalism, and important public issues, such as civil rights, civil liberties, and economic change. Mr. Cook, Mr. Miller/ Offered every semester

069 INTRODUCTION TO INTERNATIONAL RELATIONS/LECTURE, DISCUSSION

Introduces basic concepts of international relations, e.g., the "balance of power," and broader alternative perspectives by which "security" can be viewed. Explores: the rise and fall of the "Cold War System," the "Post-Cold War System," and such case studies as the 1991 Gulf War, the international human rights movement, the Israeli-Palestinian conflict, and the politics of foreign trade and development. Mr. Vitalis, Mr. Klein/Offered every year

070 INTRODUCTION TO COMPARATIVE POLITICS/LECTURE, DISCUSSION

Concentrates on two countries' politics each year: Britain and Mexico alternate with France and Canada. By looking at two countries in depth, the course explores political issues common to all countries, such as the role of the military, the relations between racial and ethnic groups, and how individual citizens become politically active. Ms. Enloe/Offered every year

102 FIRST-YEAR SEMINAR: SELECTED TOPICS IN GOVERNMENT AND POLITICS

Designed for a small group of first semester, first-year students. A different Government professor will teach this seminar on a special topic explored in depth. Staff/Offered periodically

103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

Examines the historical and contemporary relationships of sub-Saharan Africa with Europe, the United States, the Middle East, the Muslim World, and parts of Asia, and Latin America. Special attention is paid to South Africa's relationships with the rest of the world before and after the fall of apartheid. Ms. Grier/Offered every year

107 RESEARCH METHODS/LECTURE, DISCUSSION

Considers the logic of the research process: from formulating and stating testable hypotheses and operationalizing concepts to collecting and analyzing appropriate data. Discusses broad concepts and techniques, including statistics, connected to them. Students design research projects independently or in teams, and analyze data. Mr. Blydenburgh, Mr. Cook, Ms. Krefetz/ Offered every year

112 COMPARATIVE AUTHORITARIAN SYSTEMS/LECTURE, DISCUSSION

Why have so many authoritarian regimes suddenly toppled? Has the era of dictators and grand designs passed, or is this a transitional phase leading to new forms of demagoguery and repression? Studies dynamics of modern authoritarianism: its inception and structure, its transitional or permanent nature, and its distinct variations. Staff/Offered every other year

117 REVOLUTION AND POLITICAL VIOLENCE/LECTURE, DISCUSSION

Analyzes the concept, the causes, and the process of revolution. Is revolution inevitable? How does it differ from terrorism, guerrilla warfare or coups? This course examines the Russian and Chinese revolutions as 20th-century prototypes; comparisons are then drawn to more recent revolutions in Eastern Europe, the Middle East, and Latin America. Staff/Offered every year

125 DEVELOPMENT PROBLEMS/LECTURE, DISCUSSION

See International Development 125. Ms. Thomas-Slayter/Offered every year

136 SUB-SAHARAN AFRICA: ISSUES AND PROBLEMS/LECTURE, DISCUSSION

Explores issues and problems confronting sub-Saharan Africa, including the legacy of colonialism, the establishment of nation-states, and the role of parties and the military in the politics of selected countries. Examines women's roles, class conflict, alternative development strategies, the environment, regional conflicts, and the global economy. Ms. Grier, Ms. Thomas-Slayter/Offered every other year

145 AMERICA AND THE CHANGING WORLD ECONOMY/LECTURE, DISCUSSION

Introduces international political economy and global interaction of wealth, poverty, power, and powerlessness. Analyzes the role played by the U.S. in shaping the post-World War II economic order. Considers contemporary debates about causes and consequences of America's economic "decline," as well as prospects for the future. Prerequesites: Government 069 or 209 (or equivalent) are strongly recommended. Mr. Vitalis/Offered every year

147 NORMATIVE WORLD ORDERS/LECTURE, DISCUSSION

Explores normative approaches to emerging world order in an effort to appreciate those debates. Drawing upon the tradition of "universal history," it surveys contending accounts of the relationship between past and future. Is global politics moving toward a single system of values, or fragmenting into incompatible pockets of pluralist identities? Mr. Klein/ Offered every other year

154 THE POLITICS OF PUBLIC POLICY IN THE U.S./LECTURE, DISCUSSION

How do ideas become policies? Who influences decisions about public action? Do the dynamics of policy making vary across issues? This course investigates politics of policy making at the national level. Considers different frameworks of policy making, and examines the roles of, and interactions among, principal policy-making institutions and issues including voting rights, affirmative action, and health care reform. Government 050 is strongly recommended as a prerequisite. Mr. Cook/Offered every other year

155 ROOTS OF POLITICAL THOUGHT/LECTURE, DISCUSSION

Western political thought from the classic Greek period to early modern liberalism and socialism is analyzed through contributions by major thinkers: Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau and Marx. Mr. Klein/Offered every year

157 THE POLITICS OF ENVIRONMENTAL ISSUES/LECTURE, DISCUSSION

Provides a basic understanding of the social, economic, and political dimensions of environmental issues. Considers the sources of environmental problems, how issues arise, how policies have been formulated, and what effects policies have had. One or more current environmental problems are examined through readings, discussion, guest lectures, and student research. Mr. Cook/Offered every other year

170 AMERICAN POLITICAL THOUGHT AND BEHAVIOR/LECTURE, DISCUSSION

Explores factors that have shaped a distinctive American political culture—our shared values, beliefs, attitudes, and expectations of government. Considers how this culture is transmitted through the process of political socialization, in which our political orientations and behavioral predispositions are formed. Examines how political culture and socialization are connected to contemporary political attitudes and behavior. Ms. Krefetz/Offered periodically

172 SUBURBIA: PEOPLE AND POLITICS/LECTURE, DISCUSSION

The rapid growth of suburbs in the U.S. after World War II has had considerable impact on the nature of metropolitan areas. Focuses on: Why has this growth occurred? What are the characteristics of the people who live in suburbs? Is suburban homogeneity a myth or reality? How are suburbs governed? What is suburban political participation like? What are the patterns of policy making on issues such as education, zoning, and property taxes? Ms. Krefetz/Offered every other year

175 WOMEN AND POLITICS/LECTURE, DISCUSSION

Explores the political attitudes, behavior, and status of women in the U.S. Views on the nature of women and their "proper" role in society and the state, set forth by classical political philosophers in ancient times, are contrasted with ideas introduced by women's rights theorists, beginning in the 18th century. Focus is on contemporary U.S. politics, including: gender differences in political socialization and political participation, the "gender gap" in voting preferences, women as politicians and bureaucrats, and the influence of women on public policies. Ms. Krefetz/Offered every year

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

Acquaints students with the forces that have shaped the political system of contemporary South Africa. Examines Colonialism, apartheid, African nationalism and the anti-apartheid struggle, the role of African women, politics since the election of Mandela, and South Africa's regional role. Ms. Grier/Offered every year

179 COMPARATIVE FOREIGN POLICY/LECTURE, DISCUSSION

Explores forces that influence the formulation and execution of foreign policy. Is it international setting or domestic factors which determine foreign policy? What are options and constraints in devising a foreign policy in the post-cold war era? Explores the foreign policy-making process in various countries, including Europe and Eurasia. Staff/Offered every other year

184 POLITICS AND MARKETS/LECTURE, DISCUSSION

Concepts associated with market economics permeate American understanding of politics and government. But how suitable are they in explaining the workings of American national government? This course applies economic tools to American national government and evaluates the results. Mr. Blydenburgh/Offered every other year

185 POLITICS OF THE MEDIA/LECTURE, DISCUSSION

Examines how our experience of the world is "media-ted" through the collective lens of print and broadcast information sources. Gives an account of ideology and perception that questions democratic theory. Explores political economy of mass communications, especially the influence of corporate control and growing concentration of ownership in new media cartels. Addresses cultural codes of advertising, the reduction of political campaigns to public relations, and how "news programming" is shaped by production values. Discusses the Internet as an alternative form of political community. Not open to first-year students. Mr. Klein/Offered every year

186 UPHEAVAL IN EASTERN EUROPE/LECTURE, DISCUSSION

Within a dramatic and short space of time, Eastern Europe was transformed from a homogenized communist bloc to a region brimming with diversity, complexity, and unfulfilled potential. The course examines the transformations ranging from Stalinism to pluralism. Why did the revolutions of 1989 occur? What are the difficulties in transition to market economies and democracy? Staff/Offered every year

202 APPLICATIONS OF GAME THEORY/LECTURE, DISCUSSION

Game theory was invented by Jon Von Neuman in the 1920s as a language and a logic for analyzing and resolving human conflict. This course presents applications and illustrations to international relations, war, political campaigning, and many real-life situations. Students use bargaining, threats, commitments, mediators, ignorance, and power in resolving conflict. Mr. Blydenburgh/Offered every other year

203 POLITICAL THEORISTS AND THEIR THEORIES/SEMINAR

Focuses on one or two people whose theories have influenced ideas about power, governing, liberty, equality, and justice. Explores their lives and the societies and events that shaped their ideas. Theorists who have been featured include Hannah Arendt, Alexis de Tocqueville, Erich Fromm and Karl Marx. Staff/Offered every year

204 THE AMERICAN PRESIDENCY/LECTURE, DISCUSSION

Focuses on the presidency and the various leadership styles of American presidents. Examines the president's changing role in American politics, evolution of the modern presidency, selection and nomination process, and presidential character. Explores proposed reforms for the future. Mr. Miller/Offered every other year

206 RECENT POLITICAL THEORY/LECTURE, DISCUSSION

Explores issues of "modernity and its discontents" through a wide-ranging survey of critical readings covering the traditional model of capitalist development/modernization, architectural aspects of modernist public space, post-Fordist modes of geopolitical and social organization, fragmentation of narrative and identity under conditions of "post-modernity," and feminist and subaltern strategies of political resistance and mobilization. Mr. Klein/Offered every year

207 POLITICS OF DEVELOPMENT: AFRICA, ASIA, AND LATIN AMERICA/SEMINAR

Examines debates on underdevelopment and dependency. Studies politics in three countries and three continents. Examines the role of political parties, bureaucracies, the military, extremes of wealth and poverty, gender, land distribution, environmental issues, and the global economy. Ms. Grier/Offered every year

208 COMPARATIVE POLITICS OF WOMEN/LECTURE, DISCUSSION

Explores the roles, priorities, strategies, and theories of women in the politics of industrialized and developing countries. Causes for changes or lack of genuine changes in women's political influence are investigated to shed new light on those countries' political systems. Discusses the politics of democratization, sexuality, labor, and cross-race alliances. One or more previous courses in government or in women's studies is strongly advised. Ms. Enloe/Offered every other year

209 THE U.S. SINCE 1945/LECTURE

See History 209. Mr. Little/Offered every other year

210 PALESTINE, ISRAEL, AND THE ISRAELI-ARAB CONFLICT/LECTURE

Presents systematic analysis of basic problems that have to be addressed in the Israeli-Palestinian-Arab conflict and assesses prospects for a peaceful, negotiated solution. Involves group exercises, including case study analyses of key "crises" in the unfolding of the conflict. Students analyze and "act" as a Palestinian, Jordanian, Israeli, or Syrian. Mr. Vitalis/Offered every other year

213 POLICY ANALYSIS/LECTURE, DISCUSSION

Which public policy proposals will work and which will fail? What costs and benefits will a program generate? What impact will a policy have? Policy analysis draws on political science, economics, and other social sciences to answer questions like these for public officials who must decide what to do about the increasingly complex problems facing modern society. By examining policies regarding the environment, the economy, public health and welfare, and others, the course enables students to understand critical public problems and potential solutions in multidimensional ways. Limited to juniors and seniors. Mr. Cook/Offered every other year

215 STATE AND LOCAL GOVERNMENT AND POLITICS/LECTURE, DISCUSSION

Overviews the operation of state and local governments, explaining distinctive features of states in terms of their individual political, economic, historical, legal, and demographic characteristics. Focuses on how these features explain state political systems in the present and how they are likely to shape the states of the future. Focuses on Massachusetts and other Northeastern states. Prerequisite: GOVT 150. Mr. Blydenburgh/Offered every other year

218 CHILD LABOR AND THE STATE: COMPARATIVE PERSPECTIVES/LECTURE

Explores the role of children in the labor force of Asia, Africa, and Latin America. Why do children work? Should child labor be prohibited or should working children receive protection like adult workers? The role of governments in the perpetuation, regulation or abolition of child labor is examined. Other topics include: the role of gender, tourism and the sex industry, street children, child soldiers, education, and U.S. imports of child labor-produced goods. Prerequisite: GOVT 125. Ms. Grier/Offered every year.

219 THE POLITICS OF LAND: KENYA, ZIMBABWE, AND SOUTH AFRICA/SEMINAR

Examines the historical and contemporary development of countries in Africa that experienced "settler colonialism." Examines historical and contemporary development of land ownership in each country and explores the relationship between these developments and issues of wealth, poverty, political organization and repression, and women's roles. Through fiction, journal and newspaper articles, scholarly monographs, and films, the course explores experiences of Kenya and Zimbabwe with land reform to a post-apartheid South Africa. Ms. Grier/Every other year

220 URBAN POLITICS: PEOPLE, POWER, AND CONFLICT IN U.S. CITIES/LECTURE, DISCUSSION

What are the major socioeconomic and political forces that affect city politics in the U.S.? Topics include: nature of the city; fiscal constraints; federal and state urban policies; political machines; reforms; the "Post-Reform Era"; the community power debate; mayoral power and styles; regimes and coalition building; and efforts by African-Americans and Latinos to gain political incorporation. Ms. Krefetz /Offered every year

221 URBAN POLICY/SEMINAR AND INTERNSHIP

Focuses on how cities make and implement policies and deliver services, exploring especially downtown redevelopment, neighborhood revitalization, and housing policies. Students intern at a Worcester redevelopment, housing or other policy-making organization. Students discuss course readings and share experiences, combining perspectives of scholars and practitioners. Government 220 or permission of the instructor is required. Limited to twelve students, with preference given to juniors and seniors. Ms. Krefetz/Offered every other year

223 SUBURBAN POLICY ISSUES/SEMINAR

Continues the introductory suburban politics course exploring politics and policy making in suburban communities, especially zoning and land use, education, and property taxes. Students conduct original research in suburbs of Worcester and Boston. Prerequisite: GOVT 172 or permission of instructor. Ms. Krefetz/ Offered periodically

224 AFRICAN-AMERICAN POLITICS/LECTURE, DISCUSSION

Explores the relationship between African Americans and the U.S. political system, emphasizing responses of executive, legislative and judicial branches, major political parties, and mass media to the African American question for equality. Examines the impact of the Congressional Black Caucus, big city mayors, and debates over affirmative action, crime, and welfare. Ms. Grier/Offered every year

225 AFRICAN-AMERICAN WOMEN/SEMINAR

Examines historical experiences of African-American women from the period of slavery to the present. Examines their roles in economy and politics, resistance to racial and sexual oppression, and historical relationship to white women's movements. Comparisons are made between black women's experiences in the U.S., the Caribbean, and South Africa. Ms. Grier/Offered every year

227 GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION

Expands the boundaries of "development" studies beyond "local" or "national" level phenomenon, to explore a key dimension of contemporary world politics. Extends the basic historical political economy framework developed in GOVT 145, to deal in greater depth with the ideas, interests and institutions that comprise the international development "regime." Mr. Vitalis/Offered periodically

228 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER/LECTURE, DISCUSSION

Explores politics of "ethnicity" and "race" for groups as different as Asian Americans, black Britons, Latin American Indians, Bosnians, and others. Investigates government policies and popular movements. Explores the political implications of ideas about "masculinity" and "femininity" for race, ethnicity, and state power. Previous study of international development, comparative politics, history, sociology, or women's studies recommended. Ms. Enloe/Offered every other year

236 POLITICS OF VIETNAM AND THE PHILIPPINES/LECTURE, DISCUSSION

Analyzes changes, and resistance to change, that have occurred during the last two decades in Vietnam and the Philippines. Explores elite politics, rural politics, nationalism, foreign investment, the military, ethnic politics, and women's politics. Investigates what this suggests about Southeast Asia today. Ms. Enloe/Offered every other year

237 THE ARAB STATE SYSTEM/LECTURE, DISCUSSION

Focuses on the politics of "state building"—defining and institutionalizing boundaries of the "nation-state"—in post-World War I Middle East. Considers the interaction of "international" and "domestic" factors in the historical evolution of "foreign" security and economic policy in Egypt, Syria, Iraq, Jordan, Lebanon, Saudi Arabia, and the Palestinian "state-in-formation." Prerequisites: GOVT 106, 069, or 179. Mr. Vitalis/Offered every other year

238 U.S. FOREIGN RELATIONS SINCE 1914/LECTURE, DISCUSSION

See History 238. Mr. Little/Offered every year

245 AMERICANS, ISRAELIS AND ARABS/LECTURE, DISCUSSION

Studies U.S. foreign policy and diplomacy towards Israel and the Arab countries of the Eastern Mediterranean, including the Arab-Israeli peace process. After a brief introductory section, the course focuses on events in the region since the end of World War II. Mr. Lane/Offered every year

246 THE UNITED STATES AND THE PERSIAN GULF/LECTURE, DISCUSSION

After a brief introductory section on the history and geography of the region, and U.S. interests in the area, this course will focus on U.S. relations with Iran, Iraq, and the Arabian peninsula since the end of World War II. Topics to be discussed include the U.S. role in the development of Middle Eastern oil, particularly in Saudi Arabia; the collapse of the Shah and the crisis in our relations with Iran; and "Desert Shield," "Desert Storm," and U.S. efforts to get rid of Saddam Hussein. The goal is to give the students an understanding of what happened, and why. Mr. Lane/Offered every year

247 SEMINAR IN GLOBAL CAPITALISM

See Sociology 248. Mr. Ross/Offered every year

248 DECEPTION AND MANIPULATION IN POLITICS/LECTURE, DISCUSSION

Twentieth-century Western societies have seen human consciousness expand through self-knowledge and technological change. Simultaneous with benefits of psychological development is the apparent rise of mass character disorders which destroy essential values of Western culture. This seminar explores psychological and historical roots of both changes, and their implications for democratic government and contemporary political movements. Open to juniors and seniors only. Mr. Blydenburgh/Offered every year

250 U.S. FOREIGN POLICY/LECTURE, DISCUSSION

Explores domestic and international politics of American national security policy, focusing on evolution and implementation of counterinsurgency and related strategies of intervention (military assistance, covert action, low-intensity conflict, etc.) in the "Third World." Examines the historical background and principal policy-making institutions in security policy. Case studies focus on the Vietnam War, El Salvador, and the Arab-Persian Gulf. Prerequisites: GOVT 150 and 069 or equivalent. Mr. Vitalis/Offered every other year

251 SOCIAL MOVEMENTS AND INTEREST GROUPS/LECTURE, DISCUSSION

Examines the strategies of social movements and interest groups for mobilizing resources and lobbying the state. Considers theoretical frameworks used to study mobilization and action, including the pluralist, power elite, and "cycle" theories for interest groups, and collective action, resource mobilization, and political process models of social movements. Staff/Offered periodically

252 POLITICAL PARTIES/LECTURE, DISCUSSION

Examines historical developments of the party system in the U.S. and of structures and activities of the two major parties. Examines historical successes and failures of various types of third parties and comparative analysis with parties in other advanced democracies. Staff/Offered periodically

253 JUDICIAL POLITICS/LECTURE, DISCUSSION

Explores the relationships between the courts and other sectors of the American political system. Studies how judges are selected, how courts handle civil and criminal cases, judicial policy making, and how interest groups use the courts. Mr. Miller/Offered every other year

255 THE POLITICS OF CONGRESS/LECTURE, DISCUSSION

Examines contemporary politics of the U.S. Congress from individual and institutional perspectives. Includes Congressional elections, differing views of representation, House-Senate differences, Congressional policy making, relationships between Congress and the courts, the presidency, the bureaucracy and interest groups, and the future of the institution. Mr. Miller/Offered every other year

256 POLITICS OF THE SOVIET UNION AND ITS SUCCESSOR STATES/LECTURE, DISCUSSION

Examines the Soviet Union from its creation in 1917 to its collapse in 1991. Contrasts and compares how successor states are confronting new challenges: creating new national identities, developing market economies, constructing democratic institutions and civil societies, subduing ethnic conflicts, and forging new foreign links. Focuses on Russia and Ukraine. Staff/Offered every year

257 COMPARATIVE COURTS AND LAW/LECTURE, DISCUSSION

Examines the court systems, the legal systems, and the role of the legal profession in various North American and Western European countries, including Canada, the U.S., the U.K., France, and Germany. Comparisons include the concepts of judicial review, constitutionalism, and the role of the courts in the broader governmental system. The course will also explore how the European Union and the Canadian Supreme Court will integrate the legal system from both the Common Law and Civil Law legal traditions. Mr. Miller/Offered every other year

261 WOMEN AND MILITARIZATION IN A COMPARATIVE POLITICS PERSPECTIVE/SEMINAR

Tests this proposition: Any country's military grows in influence when popular ideas about "masculinity" and "femininity" link manhood with soldiering and "real womanhood" with supporting soldiers. What do women's own experiences in wartime and peacetime reveal about military politics? What do we expose about militaries when we look behind governments' policies to use women as mothers, wives, workers, or prostitutes? Do racial and economic differences shape a military's sexual division of labor? Discusses Britain, Chile, South Africa, the Philippines, and the U.S. Previous government or women's studies courses are desirable. Limited to juniors, seniors, and graduate students. Ms. Enloe/Offered every other year

265 POLITICS OF JAPAN/LECTURE, DISCUSSION

Japan is considered one of the world's powers, yet its domestic political dynamics are not widely understood by Americans. This course explores the major factors that have shaped Japanese politics and government policies since 1945. Analyzes: factional rivalries within major parties; the influence of bureaucrats; and the role of women, minorities, and business in politics. Open to majors and non-majors. Ms. Enloe/Offered every other year

272 U.S. CONSTITUTIONAL LAW: CIVIL LIBERTIES/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with freedom of religion and speech, privacy, discrimination, and equal protection. Students may take GOVT 272 and 273 in any order. Replaces GOVT 254/HIST 239. Mr. Miller/ Offered every other year

273 U.S. CONSTITUTIONAL LAW: GOVERNMENTAL POWERS/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with powers of Congress and the President, federalism, and economic rights. Students may take GOVT 272 and 273 in any order. Replaces GOVT 254/HIST 239. Mr. Miller/Offered every other year

276 ENVIRONMENTAL LAW/LECTURE, DISCUSSION

This course will focus on the development and administration of environmental law. It will be structured largely on the case method, with most cases drawn from U.S. federal law. It will cover the critical constitutionalized/legal issues that have been at the foundation of American environmental law, particularly the concepts of "takings" and "standing." It will also cover a range of issues where the case law is substantial, interesting, and controversial, such as pollution control and economic development, species protection, nuclear power and waste disposal, and resource extraction. Mr. Cook/Offered every year

280 SOVIET FOREIGN POLICY AND ITS AFTERMATH/LECTURE, DISCUSSION

Studies Soviet foreign policy from the country's uncertain beginnings as the first Marxist state—to its dominant position as a superpower—to its recent dissolution and collapse. Considers problems, goals, and trends of successive phases of Soviet foreign policy. Examines efforts of successor states, especially Russia and the Ukraine, to devise viable foreign policy strategies in the aftermath of the disintegration of the U.S.S.R. Staff/Offered every other year

281 THE POLITICS OF PUBLIC MANAGEMENT/SEMINAR

How does a large, post-industrial democracy operate between elections and after laws are passed? Explores political and managerial challenges facing major public agencies. Considers concepts and practice. Student work is project oriented. Mr. Cook/Offered every other year

282 HOUSING POLICIES/SEMINAR

Focuses on social, economic, and political factors that shape the federal government's housing policies and implementation of housing programs by local governments in metropolitan areas of the U.S. Explores: the myths and realities of public housing; urban renewal; gentrification; linkage; responses to homelessness; rent control; condominium conversions; and redlining, exclusionary zoning, and other forms of racial, gender, and income discrimination in housing. Ms. Krefetz/Offered every other year

285 SPECIAL TOPICS IN PEACE STUDIES/SEMINAR

See Peace Studies 285. Staff/Offered periodically

286 ADVANCED TOPICS IN COMPARATIVE POLITICS/SEMINAR

Focus changes each year depending on faculty interest. Has focused on "International Feminist Thought" and "Politics of Nationalism." Open to juniors and seniors, can be taken twice. Ms. Enloe, Ms. Grier/Offered every year

287 POLITICS AND POWER IN THIRD WORLD SOCIETIES/SEMINAR

See International Development 287. Ms. Thomas-Slayter/Offered periodically

289 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

Focuses on historical-theoretical approaches to, and problems in, global politics. Topic varies each year. Substantial (20-30 page) research paper required. Generally restricted to junior and senior I.R. majors; others may be admitted with permission of the instructor. Mr. Vitalis, Mr. Little/Offered every year

291 LAWYERS AND POLITICS/SEMINAR

Examines the role played by lawyers in American politics. Topics include lawyers in private practice, lawyers in legislatures, lawyers as judges, lawyers as lobbyists, government agency lawyers, and academic lawyers. Mr. Miller/Offered every other year

292 POLITICS INSIDE ORGANIZATIONS/SEMINAR

Complex formal organizations dominate modern society. Argues that organizations are best understood as political entities. Focuses on development and application of concepts for understanding conflict, power, and governance in organizations. Case studies and student research provide raw material for analysis and debate. Mr. Cook/Offered every other year

294 CAMPAIGNS AND ELECTIONS/SEMINAR

Nowhere is the political impact of the new technologies of communication and information processing more powerful than in the electoral system. A corps of professional campaign managers has emerged—women and men whose expertise has changed the meaning of elections in American politics. This seminar

develops an understanding of this new and volatile source of political power through readings, research, and illustration.
Mr. Blydenburgh/Offered every other year

297 Advanced Topics in American Politics/Seminar

Focus changes with each offering, depending on faculty interest. A past topic was "Politics of Rich and Poor". Open to juniors and seniors.
Staff/Offered periodically

HISTORY

Department Faculty

Douglas J. Little, Ph.D., *chair: U.S. diplomatic history, U.S. 20th-century history*
Daniel R. Borg, Ph.D.: *modern German history, modern European history, totalitarianism*
Sarah J. Deutsch, Ph.D.: *American social history, American women*
Debórah Dwork, Ph.D. *modern European history, history of the Holocaust*
Richard B. Ford, Ph.D.: *African history, international development*
Robert Gellately, Ph.D.: *modern German history, history of the Holocaust*
Janette Thomas Greenwood, Ph.D.: *American social history, African-American history, and history of the South*
Paul Lucas, Ph.D.: *early modern European history, 1550-1800; England and France before 1800; European intellectual history, 1650-1945*
Drew R. McCoy, Ph.D.: *early American history, U.S. intellectual and political history*
Ronald K. Richardson, Ph.D.: *European cultural history, British history, British Empire*
Paul S. Ropp, Ph.D.: *Chinese social and intellectual history*

Affiliate and Adjunct Faculty

Michiko Y. Aoki, Ph.D.
Thomas C. Barrow, Ph.D.
John C. Brown, Ph.D.
Paul Burke Jr., Ph.D.
Everett Fox, Ph.D.
Beverly C. Grier, Ph.D.
George M. Lane, M.A.
Marcus A. McCorison, M.S.
Thomas P. Massey, Ph.D.
Shelly Tenenbaum, Ph.D.
Richard P. Traina, Ph.D.
Robert J. Vitalis, Ph.D.

Emeriti

George A. Billias, Ph.D.
Robert F. Campbell, Ph.D.
Theodore H. Von Laue, Ph.D.

Undergraduate Program

The History Department offers a traditional major, a minor, and elective courses for non-majors. Majors may specialize in one geographical area, such as America, Europe, or Asia; they may choose as their specialty one of the University's interdisciplinary concentrations, such as Asian studies, Jewish studies, or women's studies; or they may specialize in a particular period or in a type of history. For example, they may specialize in 20th-century global history, comparative social history, the history of ideas, or the history of cultures.

The major exposes students to different fields of knowledge, offering training in critical thinking; the accumulation, organization, and analysis of information; and in clear and concise writing. The major provides an excellent background for graduate school, teaching; careers in law, government, journalism, international affairs, museum, library, and archival work, and business. With courses on every major geographical area of the world, and with conceptual approaches ranging from political and diplomatic to social, intellectual, and cultural, the History Department offers a rich and diverse curriculum.

The Department also participates in Clark's Higgins School of Humanities, allowing students to enjoy the support and benefits of the School.

Major Requirements

History majors must take ten history courses and four nonhistory courses, chosen in consultation with advisors. Five of the 10 required history courses must be in a field of specialization. While a field of specialization usually is defined as one geographical area (e.g., U.S., Europe, or Asia), students and advisors may define a specialization chronologically or topically. Of these five courses, at least three must be at the 200 level, and at least one must be a pro-seminar, seminar, or directed research. In addition, at least two other history courses must be taken at the 200 level, preferably outside the specialization. Majors acquire breadth of knowledge by taking at least two history courses in two regions of the world other than their specialization. At least one course, whether inside or outside the specialization, must study a period before the 19th century.

One capstone course must be taken in the senior year, either the departmental capstone course or (with permission of the chair and the instructor) a research seminar or directed research course in the student's area of specialization. The capstone requirement cannot be met by any course used to meet above conditions.

The student also must complete four nonhistory courses related to the student's main area of interest and chosen with an advisor. These courses can be at any level and do not need to be in the same department.

Majors select an advisor from the history faculty and they consult regularly, especially before registering each semester. The student and advisor design a coherent sequence of courses, design an area of specialization, and choose nonhistory courses that enhance the area of concentration. They also can make decisions about advanced research courses and enrollment in the departmental honors program.

Students considering the major and honors program are urged to take History 120, a proseminar on Writing History, during their sophomore year.

Predesigned structured concentrations in Asian studies, international development, Jewish studies, peace studies, and women's studies can be found in relevant catalog sections.

The Honors Program

The honors program provides advanced courses for outstanding history majors, especially for aspiring professional historians. The program is appropriate for any career requiring resourcefulness and analytical and writing skills. Students must meet the general requirements for the major, choose a field of specialization, and earn four honors credits as part of, or in some cases in addition to, the 10 required history courses. Students enter the program by taking a prehonors seminar or proseminar. Admission into the honors program is contingent upon the completion of a prehonors seminar and upon evidence of outstanding work in other history courses. Building on the prehonors course, students write an extensive research thesis (two course credits) under the advisor's supervision. Seniors take a directed reading course (one course credit) related to their thesis topic. The program culminates with a written examination in the field of specialization and an oral defense of the student's thesis. The honors committee includes the student's thesis advisor and two other department members. If the committee finds the thesis or examination unsatisfactory, the student only receives ordinary history credit for the thesis and directed readings course.

The Prehonors Seminar Or Proseminar

To enroll in the honors program, students must take one of the department's seminars or proseminars that emphasize the development of research, analytical, and writing skills. A significant part of these courses is devoted to the writing and revising of research papers. Students should consult with their advisors or the department chair in selecting a course that satisfies the prehonors requirement. This course is normally taken during the junior year.

Undergraduate Minor

Students who wish to obtain an undergraduate minor in history must meet the following requirements: a minimum of six history courses, at least three at the 200 level, and no more than four in any one geographical area. At least one of the six courses must be a seminar or a proseminar.

Teacher Certification

Students may receive certification to teach high school history in Massachusetts and perhaps other states. Interested students should speak to the department chair.

Five-Year B.A./M.A. Program

The History Department participates in the University's five-year B.A./M.A. Program. Information about eligibility, application procedures, and M.A. requirements, is available in a separate brochure and from the department chair.

Graduate Program

The program focuses on two broad areas: American history and modern European history, with special emphasis on the history of the Holocaust. The department is affiliated with the American Antiquarian Society, which has one of the country's finest research libraries with more than 750,000 volumes and valuable manuscripts relating to pre-1876 American history. There are a dozen smaller libraries in Worcester with combined holdings of more than one million volumes and other research facilities in Boston, Providence, and New Haven.

Graduate course work includes reading seminars (colloquia), research seminars, and individual tutorials for both reading and research purposes. Graduate students may also register in upper-division undergraduate courses at a graduate level that requires more intensive work. First- and second-year students in the doctoral program take three courses each semester, one of which must be expressly devoted to the production of a research paper. Faculty advisors help incoming students design their programs, which may include courses in other departments or colleges in the Worcester Consortium.

Master of Arts

Students must complete six courses and a one-year residence; either submit two substantial research papers prepared in two seminars, which are jointly equivalent to the master's thesis, or submit a master's thesis; and pass the required oral examination. (Residency requirements for part-time M.A. students are defined in terms of courses taken.)

Ph.D. candidates who have passed their preliminary examination (whether or not they will continue with a dissertation) may also receive the degree of master of arts.

Doctor of Philosophy

Enables students to master the discipline of history through research, reading, and teaching. In addition to meeting the 12-course requirements outlined above, a student who enters without an M.A. degree usually spends at least two full-time years at Clark, must satisfy the language requirement, teach at the college level, pass the preliminary examination, and write a doctoral dissertation within seven years of matriculation. (Residency for part-time Ph.D. students is defined in terms of courses taken.)

Students concentrating in American history must pass an examination in one foreign language, normally French, German, Spanish, or Russian. Those specializing in European history must pass examinations in two foreign languages, normally French and German. An examiner in each language determines if the student is proficient enough to use the language as a research tool. All language requirements must be satisfied before the preliminary oral examination is scheduled.

At the end of the first year, there is a required one-hour oral exam based on the first year's course work whether or not students have an M.A.

Some teaching experience at the college level is desirable for the Ph.D. degree. Students normally meet this requirement in their second and third years as teaching assistants.

New students, with their advisors, devise an appropriate plan of preparation for their doctoral qualifying examination, which is normally taken before the end of their third year.

Examination details are in the History Department Graduate Program Handbook. The exam constitutes the "preliminary examination" required by the Graduate Board. Students who pass may, upon request, receive the master of arts.

Students are advised to consider dissertation topics during their years of residence and to choose a possible dissertation advisor as soon as possible. The process of writing a dissertation is outlined in Format Regulations for Theses, Dissertations, and Research Papers at Clark University, which may be obtained from the thesis format advisor in the Graduate School Office.

Courses

Undergraduate courses are either survey courses for first and second year students, numbered with two digits or 100-199, or advanced courses numbered 200-299. The latter carry no prerequisites (unless specifically noted), but generally carry a heavier workload than lower level courses. Some 300-level graduate courses are open to juniors and seniors with permission of the instructor. "Proseminars" have limited enrollment and combine reading, discussion, and written reports. "Seminars" are research courses.

Course Listing by Fields of Specialization

METHOD AND THEORY

010 Introduction to History
120 Writing History
290 Capstone

U.S. HISTORY

010 Introduction to History
011 Survey of U.S. History to 1865
012 Survey of U.S. History since 1865
016 Race and Ethnicity in American History
020 America and the World
021 Voices from Slavery/First-Year Seminar
036 The Strange World of Thomas Jefferson/First-Year Seminar
145 U.S. History through the Novel
201 Era of the American Revolution
202 The Early American Republic
203 Seminar in U.S. Urban History: Colonial—Modern Period
204 Interpretations of American History
205 History of the American West
209 America in our Time: The U.S. Since 1968
210 Research Seminar in Early American History
211 Native American History through Autobiography
213 Gender and the City in the U.S.
214 The American Civil War
215 The Age of Lincoln
216 American History in Comparative Perspective
217 Reconstruction: America After the Civil War, 1865-1877/Research Seminar
218 U.S. in the 1920s and 1930s
219 History of American Women
221 From Slavery to Freedom
222 History of the South
223 The Civil Rights Movement
224 History of African-American Women
226 American Thought and Culture, 1600-1865
231 America in the Gilded Age, 1877–1900
232 American Victorian Culture
238 U.S. Foreign Relations since 1914
239 U.S. Constitutional Law: Civil Liberties
240 U.S. Constitutional Law: Governmental Powers
243 American Antiquarian Society Seminar in American Studies
245 U.S. Foreign Policy: Middle East
246 The United States and the Persian Gulf
286 The Vietnam War
287 Advanced Topics in International Relations

European History

005 Romans and Barbarians
070 Our European Roots: Western Civilization from the Ancient Hebrews through the Renaissance and Reformation
071 Our European Roots: Western Civilization from the 17th Century to the Present
074 The World and the West
100 Ancient Greece and Perseus/First-Year Seminar
110 Imperial Europe

121 Introduction to Greek Culture, Art, and Archaeology
122 Introduction to Roman Culture, Art, and Archaeology
123 World History Since 1600
124 Ethnicity and Nationalism in Modern Europe in Comparative Perspective
157 The Age of Nero
175 The History of the Holocaust to 1933
250 The Formation of the Modern State: Group Consciousness, Individualism, and Social Organization in "Old Europe," 1550-1789
251 The Comparative Study of Revolution: the French Revolution of 1789 and the Beginnings of Modern Revolutions
253 Twentieth-century Europe
256 Politics of the Soviet Union and Its Successor States
258 England's Old Regime, 1485-1850
259 War, Revolution and Society in Modern Germany
260 Rescue and Resistance during the Holocaust/Seminar
261 Jewish Children in Nazi-Occupied Europe
267 Religious Experience in the Ancient World
271 In Search of Humanity: 18th-century European Values
272 In Search of Humanity: 19th-century European Values
273 History of Racial Thought
280 Soviet Foreign Policy and Its Aftermath
284 The Holocaust and Its Aftermath: 1933-1996
293 Seminar on Biography
294 Enlightenments: Constructing the Modern Self

Jewish History

117 Introduction to Hebrew Bible: Narrative and Law
150 Jerusalem in History and Imagination
162 The History of the Modern Middle East
174 The Jewish Experience
175 The History of the Holocaust to 1933
260 Rescue and Resistance During the Holocaust
261 Jewish Children in Nazi-Occupied Europe
264 Women in Jewish Culture
276 Modern Jewish History and Thought
277 The History of Zionism in Israel
284 The Holocaust and Its Aftermath: 1933-1996

Latin-American History

177 Latin America since 1825

African History

032 Africa in the 21st Century/First-Year Seminar
103 Africa and the World
178 South Africa: History and Contemporary Politics
179 The History of Traditional Africa
180 History of Modern Africa
269 African Crisis/Seminar

Asian History

033 Confucianism, Daoism, Buddhism: Cultural Heritage of East Asia/First-Year Seminar
080 Introduction to Modern Asia
084 Japanese Civilization
161 History of India
181 Chinese Civilization
182 Modern China
184 Modern Japan
279 Late Imperial China
281 The Peoples Republic of China
282 Chinese Women in Literature and Society
283 Japanese Culture and Economic Development
285 Japanese Folklore
286 The Vietnam War
288 Seminar in Chinese History
289 Japanese Thought

International Development

032 Africa in the 21st Century/First-Year Seminar
103 Africa and the World
125 Development Problems

International Relations

062 War and Peace in the Middle East/First-Year Seminar

238 U.S. Foreign Policy Since 1914
245 U.S. Foreign Policy: Middle East
266 Historical Identities
287 Advanced Topics in International Relations

General Global History

062 War and Peace in the Middle East/First-Year Seminar
074 The World and the West
123 World History Since 1600
162 The History of the Modern Middle East
237 The Arab State System
255 Global Relations: 20th Century
265 Intercultural History
273 The History of Racial Thought
274 Imagining Black Identities
293 Seminar on Biography
294 Enlightenments: Constructing the Modern Self/Seminar

Courses

005 ROMANS AND BARBARIANS/ LECTURE, DISCUSSION

See Ancient Civilizations 005. Mr. Burke/Offered every other year

010 INTRODUCTION TO HISTORY/LECTURE, DISCUSSION

Introduces basic problems of historical method and interdisciplinary study in American history. The nature of history, and the individual student's connection with American social history, are examined through autobiography, family history, historic fiction, and ethnicity. Emphasis is placed on reading, discussion, and writing one's own family history. Fulfills the historical perspective requirement. Mr. Ford/Offered every year

011 SURVEY OF U.S. HISTORY TO 1865/LECTURE, DISCUSSION

A survey of American history from the earliest 17th-century settlements through the end of the Civil War. Introduces students to historical inquiry and stimulates creative inquiry into the origins and character of American civilization. Fulfills the historical perspective requirement. Mr. McCoy/Offered every year

012 SURVEY OF U.S. HISTORY SINCE 1865/LECTURE, DISCUSSION

Chronicles the rise of America to world power, focusing on key internal and foreign policy developments and conflict. Private and public life and the diversity of Americans' experiences are highlighted. Attention is given to general political, social, economic, and intellectual developments. Fulfills the historical perspective requirement. Ms. Deutsch, Ms. Greenwood/Offered every year

016 RACE AND ETHNICITY IN AMERICAN HISTORY/LECTURE, DISCUSSION

Explores the influence that racial and ethnic patterns have on American history from colonial times to the present. Largely through first-hand accounts, students will explore the experiences of various ethnic and racial groups in American history. Fulfills the historical perspective requirement. Ms. Greenwood/Offered every year

020 AMERICA AND THE WORLD/LECTURE, DISCUSSION

Traces the transformation of the United States from minor player to major power in world affairs from 1750 to the 1990s. Focuses on America's deepening military and diplomatic involvement from the War of 1898 and World War I through the Cold War and Vietnam. Other topics include America's ambivalence toward revolution, changing patterns in international race relations, and the global impact of U.S. business and culture. Fulfills the historical perspective requirement. Mr. Little/Offered every other year

021 VOICES FROM SLAVERY/FIRST-YEAR SEMINAR

Explores the nature and dynamic of American slavery, largely from first-hand accounts of those who experienced and observed the slave regime of the American South in the 19th century. Designed to introduce students to the historical controversies concerning slavery and to expose students to the primary sources that historians use to understand slavery and the slave regimes. Fulfills the verbal expression requirement. Ms. Greenwood/Offered periodically

032 AFRICA IN THE 21ST CENTURY/FIRST-YEAR SEMINAR

Introduces students to the dilemmas Africa faces in the coming century. Readings include those who see only anarchy and chaos for Africa's future and commentary on what is being done in constructive and productive activities, much of it locally based. Students write several short papers culminating in recommendations to solve a specific problem. Mr. Ford/Offered every year

033 CONFUCIANISM, DAOISM, BUDDHISM: CULTURAL HERITAGE OF EAST ASIA/FIRST-YEAR SEMINAR.

Explores the most important intellectual traditions of East Asia — Confucianism, Daoism and Buddhism. Through reading and discussing a selection of Confucian, Daoist and Buddhist (particularly Zen Buddhist) texts, students will explore the social, political and religious values of these traditions, will study their impact on the cultures of China, Korea, Japan and Vietnam, and will assess the continuing relevance of these teachings today, both in East Asia and in the world. Fulfills the values perspective. Mr. Ropp/Offered every other year

036 THE STRANGE WORLD OF THOMAS JEFFERSON/FIRST-YEAR SEMINAR

Thomas Jefferson is one of the most familiar and increasingly controversial figures in American history. This seminar explores in depth two related subjects: Jefferson's life and career (with emphasis on the intersection of the public and the private), and the central place of Jefferson's reputation and image in American culture from his time to ours. Students will read widely in recent scholarship on Jefferson as well as in primary sources. Fulfills the historical perspective requirement. Mr. McCoy/Offered periodically

062 WAR AND PEACE IN THE MIDDLE EAST/FIRST-YEAR SEMINAR

Designed to provide first-year students with a broad historical overview of military and political conflict in the Middle East since 1900, with special emphasis on America's deepening involvement in the region after World War II. Fulfills the comparative perspective requirement. Mr. Little/Offered periodically

070 OUR EUROPEAN ROOTS: WESTERN CIVILIZATION FROM THE "FALL" OF ROME THROUGH THE RENAISSANCE AND REFORMATION/LECTURE, DISCUSSION

Outlines developments of Western society and our collective identity. Presents historical "angles"—cultural, religious, political, military, economic, and social—and integrates these analytical approaches into a coherent, popular narrative. The medieval period is emphasized as the root of modern history. Hist 70 and 71 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective requirement. Mr. Lucas/Offered every year

071 OUR EUROPEAN ROOTS: WESTERN CIVILIZATION FROM THE 17TH CENTURY TO THE PRESENT/LECTURE, DISCUSSION

Same goal as History 070. Covers the military revolution of the 16th century, the bureaucratic and scientific revolutions of the 17th century, the 18th-century Enlightenment, and the political, industrial, intellectual, and social revolutions of the 19th and 20th centuries. Hist 070 and 071 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective requirement. Mr. Lucas/Offered every year

074 THE WORLD AND THE WEST/LECTURE, DISCUSSION

Surveys European interaction with the non-white world from the 15th to the 20th century, including European engagement overseas. Focuses on social and cultural transformation of Europe as a result of "Expansion," "Colonialism," and "Imperialism." Fulfills the historical perspective requirement. Mr. Richardson/Offered periodically

080 INTRODUCTION TO MODERN ASIA/LECTURE

Surveys modern historical trends in India, China, Japan, Southeast Asia, and Korea. Through political biographies, literary selections, and general histories, the course compares native traditions, colonial experiences, and postcolonial developments in Asia since roughly 1800. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

084 JAPANESE CIVILIZATION/LECTURE, DISCUSSION

Selected themes in contemporary and historical Japan. Fulfills the historical perspective requirement. Staff/Offered periodically

100 ANCIENT GREECE AND PERSEUS/FIRST-YEAR SEMINAR

See Ancient Civilizations 100. Mr. Burke/ Offered every other year

103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

See Government 103. Ms. Grier/Offered every year

110 IMPERIAL EUROPE/LECTURE, DISCUSSION

Examines Western Europe culture and society in the imperial age (1870-1914). Emphasizes the cultural roots of European imperialism and the impact of world power on Europe. Mr. Richardson/ Offered periodically

117 INTRODUCTION TO HEBREW BIBLE I: NARRATIVE AND LAW

See Jewish Studies 117. Mr. Fox/Offered every year

120 WRITING HISTORY/PROSEMINAR

Introduces students to the discipline of history, with emphasis on the different types of historical writing and on the issues involved in the research and writing of historical studies. Fulfills the historical perspective requirement. Mr. McCoy, Mr. Little/Offered every year

121 INTRODUCTION TO GREEK CULTURE, ART, AND ARCHAEOLOGY/LECTURE, DISCUSSION

See Ancient Civilizations 121. Mr. Burke

122 INTRODUCTION TO ROMAN CULTURE, ART AND ARCHAEOLOGY/LECTURE, DISCUSSION

See Ancient Civilizations 122. Mr. Burke

123 WORLD HISTORY SINCE 1600/LECTURE, DISCUSSION

Surveys the history of the world since the 16th century focusing on the economic, cultural, and political interaction of peoples. Emphasizes the non-western world. Fulfills the historical perspective requirement. Mr. Richardson/ Offered periodically

124 ETHNICITY AND NATIONALISM IN MODERN EUROPE IN COMPARATIVE PERSPECTIVE/LECTURE, DISCUSSION

Starting with ethnic divisions in Europe, analyzes the strongest political force today—modern nationalism—specifically its appeal and nature as they have changed over the past two centuries. This course fulfills the comparative perspective requirement. Mr. Borg/Offered every year

125 DEVELOPMENT PROBLEMS/LECTURE, DISCUSSION

See International Development 125. Ms. Thomas-Slayter/Offered every year

145 U.S. HISTORY THROUGH THE NOVEL/LECTURE, DISCUSSION

Introduces American history with a distinctive and unconventional approach, resting on the assumption that we can gain access to the past by reading fiction. Students learn how to approach imaginative literature from an historical perspective and to appreciate the historical insight of writers who were keen observers of aspects of the making of modern America. Fulfills the historical perspective requirement. Mr. McCoy/Offered every year

150 JERUSALEM IN HISTORY AND IMAGINATION/LECTURE, DISCUSSION

See Jewish Studies 150. Mr. Burke, Mr. Fox

157 THE AGE OF NERO/LECTURE, DISCUSSION

See Ancient Civilizations 157. Mr. Burke/ Offered every other year

161 HISTORY OF INDIA/LECTURE, DISCUSSION

Through the study of cultural and historical documents as well as modern historical scholarship, studies the history of India emphasizing the nature of British rule in India from the 17th century to the mid-20th century. Formerly titled British India. Staff/Offered periodically

162 THE HISTORY OF THE MODERN MIDDLE EAST/LECTURE, DISCUSSION

Focuses on Middle Eastern history and society from World War I to the present. Major themes include the collapse of the Ottoman Empire and the emergence of nation-states; colonial rule in the Arab world and the struggle for independence, the Arab-Israeli conflict; the rise of Islamic fundamentalism, and the impact of oil. Mr. Little, Staff/Offered periodically

174 THE JEWISH EXPERIENCE/LECTURE, DISCUSSION

Surveys history of the Jewish community and the development of Judaism from the era of Alexander the Great (c. 325 B.C.E.) to the present. Examines the major political, religious, social, and economic trends of each period as they affected the Jewish community and the development of Judaism. Emphasizes elements of change and continuity as well as interaction of the Jewish community with the larger culture and community. Fulfills historical perspective requirement. Staff/Offered every year

175 THE HISTORY OF THE HOLOCAUST TO 1933/LECTURE, DISCUSSION

This course is the first of a two-part course on the History of the Holocaust. It will examine the roots of this cataclysm of western civilization up to the eve of World War II. Formerly numbered Hist 278, The History of the Holocaust to 1933. Ms. Dwork/Offered every year

177 LATIN AMERICAN HISTORY SINCE 1825/LECTURE, DISCUSSION

Surveys Latin American nations from independence to the present, emphasizing the 20th century. Includes the persistence of neocolonial social and economic structures, emergence of nationalist and revolutionary movements after 1900, and U.S.-Latin American relations. Special emphasis on Mexico, Argentina, and Brazil. Fulfills the historical perspective requirement. Staff/Offered periodically

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

See Government 178. Ms. Grier/Offered every year

179 THE HISTORY OF TRADITIONAL AFRICA/LECTURE, DISCUSSION

Introduces the history of Africa south of the Sahara. Begins with early civilizations of Kush, Axum, Ghana, Mali, Songhai, Benin, the Zanj, Congo, and Zimbabwe and continues through the arrival of Europeans. The approach is largely historical and anthropological. Fulfills the historical perspective requirement. Mr. Ford, Staff/Offered periodically

180 HISTORY OF MODERN AFRICA/LECTURE, DISCUSSION

Introduces students to major themes of modern African history. Begins with orientation to precolonial Africa and considers the imperial years, the struggle for independence, the 1960s as a decade of independence, and the 1970s and 1980s as a search for identity and development. Focus is on the years since 1945. Fulfills the historical perspective requirement. Staff/Offered periodically

181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

Focuses on Chinese life, institutions, and culture from the earliest times through the mid-19th century. Creative literature, philosophical writings, and selected primary documents supplement information presented in interpretive texts and lectures. Fulfills the historical perspective requirement. Formerly listed as Traditional China. Mr. Ropp/ Offered every other year

182 MODERN CHINA/LECTURE, DISCUSSION

Introduces events, personalities, and concepts of importance for understanding China's history from the early 19th century to the present. Readings that present the Chinese view of events supplement interpretative studies by Western scholars. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

184 MODERN JAPAN/LECTURE, DISCUSSION

Examines Japanese political, social, economic, diplomatic, and cultural history from approximately 1800 to the present. Focuses on issues arising in the transition of a non-Western culture from a feudal society to a modern political-economic unit. Fulfills the historical perspective requirement. Staff/Offered every other year

201 ERA OF THE AMERICAN REVOLUTION/LECTURE, DISCUSSION

Studies the origins, character, and consequences of the American Revolution, from the erosion of imperial authority in the 1760s and 1770s to the Constitutional Convention of 1787. Emphasizes relation of ideology and political ideas to social development. Mr. McCoy/Offered every other year

202 THE EARLY AMERICAN REPUBLIC/LECTURE, DISCUSSION

Studies formation and testing of the early U.S. from the adoption of the Constitution through the Jacksonian era. Emphasizes ideology, public policy, and the problem of national integration during an age of extraordinary territorial and economic expansion. Mr. McCoy/Offered periodically

203 SEMINAR IN U.S. URBAN HISTORY: COLONIAL - MODERN PERIOD/SEMINAR, DISCUSSION, RESEARCH

Examines the urban experience in what is now the U.S. from its multiethnic colonial origins to its multiracial present. Emphasizes the relationship between the organization of space in the city and the social and political organization of the city, from witch-hunts to riots. Ms. Deutsch/Offered periodically

204 INTERPRETATIONS OF AMERICAN HISTORY/PROSEMINAR

A colloquium that takes a broadly conceptual and historiographical approach to the literature in early American history, from the origins of colonization to approximately 1820. Permission of the instructor is required. Mr. McCoy/Offered periodically

205 HISTORY OF THE AMERICAN WEST/LECTURE, DISCUSSION

Cowboys, Indians, and goldminers; farmers, fur traders, railroad workers, and prostitutes; Chinese, Japanese, Mexican, and African Americans; men and women of the frontier—all became part of the myth and history of the American West. From gold and silver to Silicon Valley, from the Hopi to Hollywood, the course examines how the West was shaped by eastern dreams and how, in turn, those dreams were reshaped. Ms. Deutsch/Offered every other year

209 AMERICA IN OUR TIME: THE U.S. SINCE 1968/LECTURE, DISCUSSION

Examines the recent American past from Watergate through "Generation X." Utilizes film and video to reacquaint students with figures ranging from Elvis Presley and Richard Nixon to Ronald Reagan and Anita Hill. Major themes include the death and rebirth of the affluent society, the persistence of ethnic and racial conflict, and the waning of the Cold War. Formerly titled: The U.S. Since 1945. Mr. Little/Offered every other year.

210 RESEARCH SEMINAR IN EARLY AMERICAN HISTORY/RESEARCH SEMINAR

A combination of individual and collective endeavors. Focuses on historical research and writing. Students research a topic in early American history through the Civil War. Permission of the instructor is required. Mr. McCoy/Offered periodically

211 NATIVE AMERICAN HISTORY THROUGH AUTOBIOGRAPHY/LECTURE, DISCUSSION

Explores U.S. history from the perspectives of Native Americans. Several autobiographers from a single group are read to recognize variety within groups so as not to reduce their individual history to "the" Indian experience. Discusses autobiography and narrative, and what "history" is. Ms. Deutsch/Offered every other year

213 GENDER AND THE CITY IN THE U.S./DISCUSSION, RESEARCH

Focusing on the 19th and 20th centuries, examines where urban life for men and women diverged and where it met. Readings on men, women, and urban space, reform movements, utopian ideals, and other topics are followed by student research projects using local resources. Ms. Deutsch/Offered periodically

214 THE AMERICAN CIVIL WAR/LECTURE, DISCUSSION

Examines events and trends precipitating the single greatest crisis in American history, the Civil War of 1861-65. Includes consideration of the behavior and experience of Americans during the war itself. Mr. McCoy/Offered every other year

215 THE AGE OF LINCOLN/PROSEMINAR

A reading, discussion, and research course focusing on an extraordinary individual and his times. Emphasizes biography and the relationship between the private and the public in Abraham Lincoln's life, which becomes the vehicle for understanding better the distinctive problems and concerns of American society, culture, and politics from approximately 1815 through the end of the Civil War. Mr. McCoy/Offered every other year

216 AMERICAN HISTORY IN COMPARATIVE PERSPECTIVE/PROSEMINAR

Content and topics vary with instructor's interests. A reading and discussion course exploring the advantages of taking a comparative approach to selected key themes and issues in the history of the United States. Permission of the instructor is required. Staff/Offered periodically

217 RECONSTRUCTION: AMERICA AFTER THE CIVIL WAR, 1865-1877/SEMINAR

Examines American history in the post-Civil War period, from 1865 to 1877, a period of national redefinition and political and social experimentation. Explores how Americans struggled with the consequences of the Civil War and emancipation. Grounds students in the historical literature of the Reconstruction era while emphasizing original student research in local sources. Ms. Greenwood/Offered every other year

218 U.S. IN THE 1920S AND 1930S/LECTURE, DISCUSSION

These decades abounded with experiments—social, artistic, and technological—and with individuals—Henry Ford, Charles Lindbergh, Franklin and Eleanor Roosevelt, Huey Long—who believed each had the power single-handedly to remake the world. Traces developments in American popular culture, politics, economics, and society through novels, speeches, and other documents, secondary sources, and films. Ms. Deutsch/Offered periodically

219 HISTORY OF AMERICAN WOMEN/LECTURE, DISCUSSION

Examines female experience in the U.S., focusing on issues of power, race, ethnicity, and class, and on concepts of work, family, and gender, with their ramifications for the world of both sexes. Fulfills the historical perspective requirement. Ms. Deutsch/Offered every year

221 FROM SLAVERY TO FREEDOM/LECTURE, DISCUSSION

Examines the historical experience of blacks in America from the colonial period to the present. Explores the evolution of slavery, changing conceptions of race, blacks in the Civil War and Reconstruction, the Great Migration, and the Civil Rights Movement. Fulfills the historical perspective requirement. Formerly titled: African-American History. Ms. Greenwood/Offered every other year.

222 HISTORY OF THE SOUTH/LECTURE, DISCUSSION

Explores the history of the South from the colonial period to the present, focusing on how the South developed as a distinctive region of the United States. Examines development of slavery; impact of slavery on the economy, politics, and culture of the South; race, class, and gender in the Old and New South; myth and reality of the New South; the South in the 20th century. Ms. Greenwood/Offered every other year

223 THE CIVIL RIGHTS MOVEMENT/LECTURE, DISCUSSION

Examines roots and evolution of the Civil Rights Movement from the 1930s to the present. Includes civil rights as a grassroots movement; the New Deal, World War II, and civil rights; emergence of Martin Luther King; women and the Civil Rights Movement; black power; the disintegration of the movement; the meaning of civil rights today. Ms. Greenwood/ Offered every other year

224 HISTORY OF AFRICAN-AMERICAN WOMEN/SEMINAR

See Government 225. Ms. Grier/Offered every year

226 AMERICAN THOUGHT AND CULTURE, 1600-1865/LECTURE, DISCUSSION

An upper-division survey of American intellectual and cultural history from the New England Puritans to the Civil War. Mr. McCoy/Offered every other year

231 AMERICA IN THE GILDED AGE, 1877–1900/PROSEMINAR

Focuses on a volatile period of American history, the Gilded Age, 1877 to the turn of the century. Examines Gilded Age society, culture, economy, and politics. Includes immigration and urbanization, industry and labor relations, family life, and agrarian movements. Ms. Greenwood/Offered every other year

232 AMERICAN VICTORIAN CULTURE/SEMINAR

Selected topics in American cultural history from 1815 to about 1900. Students prepare an independent research paper in addition to reading widely in the relevant scholarly literature. Mr. McCoy/Offered every other year

237 THE ARAB STATE SYSTEM/LECTURE, DISCUSSION

See Government 237. Mr. Vitalis/Offered every other year

238 U.S. FOREIGN RELATIONS SINCE 1914/LECTURE, DISCUSSION

Analyzes America's rise to globalism from World War I through the end of the Cold War, focusing on key policymakers like FDR, JFK, Kissinger, and Clinton. Topics include the atomic bomb, the CIA, the Vietnam War, and the Arab-Israeli conflict. Emphasizes dilemmas of the 1990s—the Gulf War, Bosnia, and economic rivalry with Japan. Mr. Little/Offered every year

239 U.S. CONSTITUTIONAL LAW: CIVIL LIBERTIES/LECTURE, DISCUSSION

See Government 272. Replaces Government 254/History 239, American Constitutional Law. Mr. Miller/Offered every other year

240 U.S. CONSTITUTIONAL LAW: GOVERNMENTAL POWERS/LECTURE, DISCUSSION

See Government 273. Replaces Government 254/History 239. Mr. Miller/Offered every other year

243 AMERICAN ANTIQUARIAN SOCIETY SEMINAR IN AMERICAN STUDIES/SEMINAR

Given at the American Antiquarian Society (about two miles from Clark); students conduct original research in the society's unique holdings. Students apply in the spring through Professor McCoy. American Antiquarian Society Staff/Offered every year

245 U.S. AND THE EASTERN MEDITERRANEAN

See Government 245. Formerly HIST 244. Mr. Lane/Offered periodically

246 THE U.S. AND THE PERSIAN GULF/LECTURE, DISCUSSION

See Government 246. Formerly HIST 244. Mr. Lane/Offered periodically

250 THE FORMATION OF THE MODERN STATE: GROUP CONSCIOUSNESS, INDIVIDUALISM, AND SOCIAL ORGANIZATION IN "OLD EUROPE," 1550-1789/LECTURE, DISCUSSION

An examination of pre-French Revolutionary Europe as a corporative and customary political culture. This course studies how that culture was altered by militarism, absolutism, mercantilism, early capitalism, modern science, and the requirements of the international system of European states. Students gain an appreciation of the social and ideological legacies of the old regime in our own time. Fulfills the historical perspective requirement. Mr. Lucas/Offered every other year

251 THE COMPARATIVE STUDY OF REVOLUTIONS: THE FRENCH REVOLUTION OF 1789 AND THE BEGINNINGS OF MODERN REVOLUTIONS/ PROSEMINAR

Analysis of old and new ideas of revolution, including ritual, resistance, reactionary restoration vs. innovation; the "democratic" revolution; the psychology, sociology, and social psychology of revolutionary behavior; religion and revolution; violence; and the relevance of the French Revolution to 20th-century issues. Fulfills the comparative perspective requirement. Mr. Lucas/Offered every other year

253 TWENTIETH-CENTURY EUROPE/LECTURE, DISCUSSION

Concentrates on the characteristic problems of Europe in a century of war, economic convulsion, and political instability. Staff/Offered every year

255 GLOBAL RELATIONS: 20TH CENTURY/LECTURE/DISCUSSION

Advanced reading on the nature of global relations in the 20th century. Students gain a comprehensive and critical introduction to the different ways of conceptualizing those relations. Mr. Richardson/Offered periodically

256 POLITICS OF THE SOVIET UNION AND ITS SUCCESSOR STATES/LECTURE, DISCUSSION

See Government 256. Staff/Offered every year

258 ENGLAND'S OLD REGIME, 1485-1850/LECTURE, DISCUSSION

Examines formation of the peculiarities of the English "character," state, society, religions, and the world's first modern industrial economy, 1500-1850. Compares England's experience with continental Europe's and the use of historical psychology. Fulfills the historical perspective requirement. Mr. Lucas/Offered every other year

259 War, Revolution, and Society in Modern Germany/Lecture, Discussion

Examines key cultural, social and political developments in Germany from the early 19th century, with emphasis on Bismarck's Germany, the era of the First World War, the Revolution of 1918-19, and the Weimar Republic. This is the first of a two-part course on the history of modern Germany. It also provides an introduction to the Nazi period, though this turbulent and tragic time is studied in depth in the second semester course. Formerly titled "Modern Germany." Mr. Gellately/Offered every other year

260 Rescue and Resistance During the Holocaust/Seminar

Investigates rescue and resistance activities during the Second World War. Our aim will be to come to a critical understanding of what we mean by "rescue" and "resistance," and to analyze how these undertakings were organized, who participated in them, and why people felt compelled to do so. Looks at the role and function (if any) of age, gender, degree of religious observance, political affiliation, and social class in our attempts to understand not only what activities were undertaken, but the motivation for such actions. Ms. Dwork/Offered every other year

261 Jewish Children in Nazi-Occupied Europe/Seminar

Jewish children had many different types of living experiences during the war years. The purpose of this course is to study the lives of European Jewish children during and after the occupation years. Studying the youngest and most vulnerable members of society, students will learn about the children themselves and about the adults who framed and shaped their lives. Ms. Dwork/Offered periodically

264 Women in Jewish Culture

See Sociology 258. Ms. Tenenbaum/Offered every other year

265 Intercultural History/Lecture, Discussion

Surveys the history of the world since the 16th century, focusing on the economic, cultural and political interaction of peoples. Primary emphasis is given to the non-western world. Mr. Richardson/Offered periodically

266 Historical Identities/Seminar

Explores how societies have created and maintained unifying myths of identity through time. Focuses on how such myths and the process of myth making have been affected by intercultural relations. Mr. Richardson/Offered periodically

267 Religious Experience in the Ancient World/Lecture, Discussion

See Ancient Civilizations 267. Mr. Burke/Offered every other year

269 African Crisis/Seminar

Focuses on the interface among political, economic, ecological, and development issues in Africa. It assumes that major dilemmas at national levels may have locally based management strategies that offer promise to lessen ecological and political pressures now facing Africa. Mr. Ford/Offered periodically

271 In Search of Humanity: 18th-Century European Values/Lecture, Discussion

Examines the Enlightenment and its heirs and critics: scientific revolution, philosophical reformism, and early conservative romanticism. Emphasizes rival perceptions of man's psychological and social nature, history, and aesthetic and religious sensibilities as seen through great secondary treatments of the Enlightenment (which also introduce the student to approaches to intellectual history). Original sources: Hume, Beccaria, Rousseau, Condorcet, Kant, Burke, Savigny. Fulfills the values perspective requirement. Mr. Lucas/Offered every other year

272 In Search of Humanity: 19th-Century European Values/Lecture, Discussion

The elaboration of the Enlightenment by its heirs and critics. Same emphasis as in 271, but focus is on analysis of political and economic liberalism, social Darwinism, racism, and "utopian" socialism in England and France; analysis of nationalism, Marxism, positivism, old and new conservatisms; reassessment of the values and progress of European civilization among principally Italian and German thinkers. Fulfills the values perspective requirement. Mr. Lucas/Offered every other year

273 THE HISTORY OF RACIAL THOUGHT/LECTURE, DISCUSSION

Surveys European racial thought since the 15th century. Places racial thinking in the context of European encounters with non-European peoples and Jews, while relating it to social, economic, cultural, and political trends. European racial thinking will be studied in a world historical context by comparing it to racial thought in China, Japan, India, and the U.S. in order to determine what is unique to it and what it has shared with racism elsewhere. Fulfills the historical perspective requirement. Mr. Richardson/Offered periodically

274 IMAGINING BLACK IDENTITIES/LECTURE, DISCUSSION

Through the study of the work of such black writers as W.E.B. DuBois, C.L.R. James and Chinua Achebe, this course examines the construction of black narratives of history and self in the Atlantic Diaspora (U.S., Britain, Caribbean, and West Africa). Formerly titled Black Liberation Consciousness. Mr. Richardson/Offered periodically

276 MODERN JEWISH HISTORY AND THOUGHT/LECTURE, DISCUSSION

Discusses the emergence of the Jew into modern society after the French Revolution. The political and ideological struggle over emancipation and adjustment are traced through the growth of Jewish denominationalism in Western Europe. The competing ideologies of Jewish nationalism (including those of both Zionist and non-Zionist character) are discussed in the context of Eastern European Jewry and its unique contribution to modern Jewish identity. Course concludes with an examination of the Weimar Republic in Germany (1918-1933) and the independent Polish State (1918-1939). Staff/Offered every other year

277 THE HISTORY OF ZIONISM IN ISRAEL/SEMINAR

See Jewish Studies 277. Staff/Offered periodically

279 LATE IMPERIAL CHINA/SEMINAR

Explores the history of Chinese civilization from the Yuan Dynasty through the late 19th century. Examines the relationship between the Chinese state and society, focusing upon developments of fundamental systems of thought and society. Mr. Massey and Mr. Ropp/Offered periodically

280 SOVIET FOREIGN POLICY AND ITS AFTERMATH/LECTURE, DISCUSSION

See Government 280. Staff/Offered every other year

281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE, DISCUSSION

Surveys life in the People's Republic of China from 1949 to the present. Includes a history of the People's Republic, and attention to such themes as politics, society, family life, economics, foreign relations, literature, and the arts. Mr. Ropp/Offered every other year

282 CHINESE WOMEN IN LITERATURE AND SOCIETY/LECTURE, DISCUSSION

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

283 JAPANESE CULTURE AND ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Studies of the relationship between Japanese culture and the economic development of Japan from the 15th century to the present. Emphasizes evolution of economic institutions and business practices within the context of Japanese culture. Ms. Aoki/Offered periodically

284 THE HOLOCAUST AND ITS AFTERMATH, 1933-1996/LECTURE, DISCUSSION

Although this course is the second part of a two-semester course on the History of the Holocaust, the first semester (HIST 175) is not a prerequisite for this course. This term the course will return briefly to 1933 to cover the National Socialist years prior to the war. The purpose of the course is to provide students with a critical, analytical understanding of the Holocaust and the context in which it occurred, and encourage them to think about its long-term effects. Ms. Dwork/Offered every year

285 JAPANESE FOLKLORE/PROSEMINAR
The history of Japan as conceived, interpreted, and contested in historical writing and in popular memory, including folklore and popular literature. Ms. Aoki/Offered periodically

286 THE VIETNAM WAR/LECTURE, DISCUSSION
Explores the Vietnam War, emphasizing American involvement in Vietnam in the decade 1965 to 1975. Includes a survey of the history and culture of Vietnam, French experience in Vietnam, and American involvement with Vietnam from World War II to the present. Mr. Little, Mr. Ropp/Offered periodically

287 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR
Content varies with the interests of the instructor. In the past, topics have included the CIA and Covert Action, JFK's Foreign Policy, and American Diplomacy in the Middle East since 1900. Students write research papers based on primary sources. The course is intended for advanced students, particularly history and government majors concentrating on international relations. Formerly titled History 291, Seminar on Advanced Topics in International Relations Seminar. Mr. Little/Offered every year

288 SEMINAR IN CHINESE HISTORY/SEMINAR
Topical research seminar in Chinese history for those with a concentration in Asian Studies. Prerequisite: Asian Studies 080 or 181 or 182, or by permission. Mr. Ropp/ Offered periodically

289 JAPANESE THOUGHT/PROSEMINAR
Inquires into different strands of thought that have surfaced throughout Japanese history. Prerequisite: History 080 or 084, or by permission of instructor. Ms. Aoki/Offered periodically

290 CAPSTONE/PROSEMINAR, DISCUSSION
Readings and discussions in the history of the idea of history from Thucydides to the present. Formerly titled History 295, Capstone. Mr. Borg, Staff/Offered every year

293 SEMINAR ON BIOGRAPHY/SEMINAR
Through readings and discussions, the seminar investigates the relationship between select "great" personalities of the 20th century and history. We consider the role of personality in "shaping" events, modern notions of the self, and the mythic functions of the "great" personality. Formerly titled Modern Western Culture. Mr. Richardson/Offered periodically

294 ENLIGHTENMENTS: CONSTRUCTING THE MODERN SELF/PROSEMINAR
Studies aspects of culture and thought in the 20th-century West. Topics include modernism, psychoanalysis and behavioral science, structuralism, deconstruction, feminism, race, and popular culture. Formerly titled: Twentieth-Century Western Culture. Mr. Richardson/ Offered periodically

296 MODES OF INTERPRETATION/SEMINAR
See History 396. Ms. Deutsch/Offered periodically

299 SEC.1 DIRECTED READINGS/TUTORIAL
Undergraduates, normally juniors and seniors, design a directed readings course consisting of a sequence of structured readings on a topic approved and supervised by an instructor. Prerequisite: permission of instructor. Offered for variable credit. Staff

299 SEC.2 RESEARCH PROJECTS/TUTORIAL
Undergraduates, normally juniors and seniors, construct an independent research course with an instructor of their choosing. Prerequisite: permission of instructor. Offered for variable credit. Staff

Departmental Honors

299 SEC.8 HONORS THESIS RESEARCH
Honors students receive up to two credits for thesis research. Honors students preparing for the comprehensive exam receive credit for their reading under History 299. Offered for variable credit. Staff/Offered every year

299 SEC.9 INTERNSHIP
Students who undertake an interdisciplinary internship for more than two credits may receive up to two credits in history and the remainder in another department. Prerequisite: permission of instructor and of chair. Offered for variable credit. Staff

Graduate Courses

300 READINGS IN AMERICAN COLONIAL HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. McCoy

301 STUDIES IN THE AGE OF THE AMERICAN REVOLUTION/TUTORIAL
Independent studies. Offered for variable credit. Mr. McCoy

303 SEMINAR IN U.S. URBAN HISTORY/SEMINAR
See History 203. Ms. Deutsch/Offered periodically

304 INTERPRETATIONS OF AMERICAN HISTORY/PROSEMINAR
See History 204. Mr. McCoy/Offered periodically

310 RESEARCH SEMINAR IN EARLY AMERICAN HISTORY/RESEARCH SEMINAR
See History 210. Mr. McCoy/Offered periodically

313 GENDER AND THE CITY IN THE U.S./DISCUSSION, RESEARCH
See History 213. Ms. Deutsch/Offered periodically

315 THE AGE OF LINCOLN/PROSEMINAR
See History 215. Mr. McCoy/Offered every other year

332 AMERICAN VICTORIAN CULTURE/SEMINAR
See History 232. Mr. McCoy/Offered every other year

333 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/SEMINAR, DISCUSSION, READINGS
An advanced readings course in women's history, looking at major new works and theoretical issues. Ms. Deutsch/Offered every other year

334 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/RESEARCH SEMINAR
An advanced research seminar for topics in U.S. women's history. Ms. Deutsch/Offered every other year

335 STUDIES IN 19TH-CENTURY U.S. HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. McCoy

337 STUDIES IN DIPLOMATIC HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. Little

341 STUDIES IN AMERICAN THOUGHT AND CULTURE/ TUTORIAL
Independent studies. Offered for variable credit. Mr. Koelsch, Staff

344 STUDIES IN RECENT AMERICAN HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. Little, Staff

345 AFRICAN-AMERICAN HISTORY/SEMINAR, READINGS, DISCUSSION
Intensive readings and discussion of literature of African-American history. Ms. Greenwood/ Offered periodically

346 AFRICAN-AMERICAN HISTORY/RESEARCH SEMINAR
Research seminar on topics in African-American history. HIST 345 is a prerequisite for this course. Ms. Greenwood/Offered periodically

348 TOPICS IN AMERICAN SOCIAL HISTORY
Independent studies. Offered for variable credit. Ms. Deutsch, Staff

350 STUDIES IN EARLY MODERN EUROPEAN HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. Lucas

351 STUDIES IN EUROPEAN INTELLECTUAL HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Papers and discussion. Mr. Lucas or Mr. Richardson

352 STUDIES IN MODERN EUROPEAN HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. Borg, Staff

354 STUDIES IN MODERN CULTURAL/INTELLECTUAL HISTORY/TUTORIAL
Independent studies. Offered for variable credit. Mr. Richardson

355 STUDIES ON IMPERIALISM/TUTORIAL
Independent studies. Offered for variable credit. Mr. Richardson

356 INTRODUCTION TO ADVANCED STUDIES OF THE HOLOCAUST/SEMINAR

Explores the history of the Holocaust both broadly and deeply. Aims to develop a comprehensive understanding of the pan-European scope of the Holocaust, and a fine-grained knowledge of local conditions and contexts. Using primary and secondary texts, students will explore the role, actions, and lives of all involved groups: perpetrators, victims, bystanders, witnesses, resisters, and rescuers. This seminar is geared to graduate students and open to specially qualified undergraduates. Mr. Gellately/Offered periodically

361 DEVELOPMENT PROJECT MANAGEMENT/SEMINAR

See International Development 361. Formerly titled History 290, Development Project Management. Mr. Ford, Ms. Thomas-Slayter Offered every year

380 STUDIES IN AFRICAN HISTORY/TUTORIAL

Independent studies. Offered for variable credit. Mr. Ford

383 STUDIES IN CHINESE HISTORY/TUTORIAL

Independent Studies. Offered For Variable Credit. Mr. Ropp

384 STUDIES IN JAPANESE HISTORY/TUTORIAL

Independent studies. Offered for variable credit. Staff

387 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

See History 287. Formerly titled History 291, Seminar on Advanced Topics in International Relations. Mr. Little/Offered every year

390 COLLOQUIUM (THESIS OR DEPARTMENTAL)

University-wide course number reserved for this type of course.

391 MASTER'S SEMINAR

University-wide course number reserved for this type of seminar.

392 THESIS RESEARCH

University-wide course number reserved for this research. Variable Credit. Staff

394 GRADUATE RESEARCH SYMPOSIUM

University-wide course number reserved for this type of course.

395 PRACTICUM IN THE TEACHING OF HISTORY

Offered for variable credit. Mr. Ford, Staff

396 MODES OF INTERPRETATION/SEMINAR

Explores new frontiers of historical methods. Introduces theory, concentrating on understanding new approaches to texts and theories of causation, change, and persistence which, though they emerge from a variety of disciplines, affect all fields of history. Ms. Deutsch/Offered periodically

397 MASTER'S THESIS

University-wide course number reserved for work on the Master's thesis. Variable Credit. Staff

398 DOCTORAL DISSERTATION

University-wide course number reserved for doctoral dissertation work. Variable Credit. Staff

399 GRADUATE READINGS

Offered for variable credit. Staff

INTERNATIONAL DEVELOPMENT AND SOCIAL CHANGE

Program Faculty

Barbara P. Thomas-Slayter, Ph.D., *director, International Development Program: local institutions and organizations, women and public policy, peasant-state relations, gender issues*

Richard B. Ford, Ph.D., *director, Center for Community-Based Development: African history, resource management, participation, sustainable development*

Cynthia Miller, Ph.D.: *anthropology, globalization, mass media, construction of identity*

Basil G. Savitsky, Ph.D.: *GIS, remote sensing, technology transfer, biodiversity mapping*

Ann Seidman, Ph.D.: *regional economics, African development, project analysis, development theory, role of state in development process*

Adjunct Faculty

Parminder Bhachu, Ph.D.: *cultural identity, nationalism, migration and ethnicity, race and gender*

Robert Bradbury, Ph.D.: *health planning, health systems analysis, health administration*

Joseph de Rivera, Ph.D.: *social psychology of peace and justice, relationships between emotion and social responsibility*

J. Ronald Eastman, Ph.D.: *cartography, geographic information systems*

Jacque L. Emel, Ph.D.: *resource/environmental geography, feminist theory*

Cynthia Enloe, Ph.D.: *women and politics, militarization, Asian politics, British politics, ethnic and racial politics*

Beverly C. Grier, Ph.D.: *African politics, international development, women's studies, and U.S. black politics*

Donna Hicks, Ph.D.: *Conflict mediation and negotiation*

Robert C. Hsu, Ph.D.: *economic development, comparative economic systems, Chinese and Japanese economics, international economics*

Douglas L. Johnson, Ph.D.: *cultural ecology, arid lands management, land degradation, geography of the Middle East and North Africa, pastoral nomadism*

Roger Kasperson, Ph.D.: *hazards, global change, environment and society*

Dorothy Kaufmann, Ph.D.: *language and culture in the French-speaking world*

Laurence A. Lewis, Ph.D.: *geomorphology, tropical agriculture, land degradation*

Robert Cameron Mitchell, Ph.D.: *environment and society, risk perception, survey research methodology*

Richard Peet, Ph.D.: *political economy of development, social theory, geography of consciousness*

Frank Puffer, Ph.D.: *regional economics, African economic development, health economics*

Dianne Rocheleau, Ph.D.: *political ecology, cultural/systems ecology, gender, forestry, agriculture and land use, environment/development*

Henry J. Steward, Ph.D.: *cartography, remote sensing, history of the mapping sciences*

B.L. Turner II, Ph.D.: *cultural/human ecology, global change, small holder and tropical agriculture*

Robert Vitalis, Ph.D.: *international political economy, business and politics in developing countries, history of development and international relations, American Foreign Policy, Middle East politics*

Program

International Development and Social Change (I.D.) is an interdisciplinary program with teaching, training, and research components. It offers the M.A. degree with two variations, a B.A. major, an accelerated five-year B.A./M.A. program and certificate courses on selected topics. I.D. was founded in the mid-1970s as a cross-disciplinary effort among the Graduate School of Geography, the Environmental Affairs Program, and the Departments of Government, Economics, and History. This interdisciplinary approach has been enhanced by collaboration with the Graduate School of Management, the Environmental School and the George Perkins Marsh Institute.

The teaching program introduces students to the complex issues involved in international development, acquaints them with research activities, and prepares them for careers and participation in international fields. It orients majors to the changing world in which we live, and to the increasing role developing societies play in the interdependence of the world's social, economic, and political systems. The program offers nonmajors participation in its courses, seminars, or other international development activities. Undergraduates are encouraged to pursue a double major with I.D. and a cooperating department.

Majors acquire basic skills of economic and social analysis, as well as a generalized orientation toward development and social change. These skills and attitudes are useful for careers in the private or public sector dealing with developing areas of the world and relations between North and South. They are also relevant to graduate study and specialization. To attain these skills, students work in a combined graduate-undergraduate setting, blending the breadth of liberal arts with the specialization of professional training. The curriculum includes departmental courses, new cross-disciplinary courses, and applied research. Students also participate in seminars, symposia, internships, and summer research.

The research program offers faculty and students opportunities to work individually and cooperatively on topics related to international development and social change. Recent research projects have included:

- analyzing community institutions and settlement patterns in Somalia;
- assessing household and community responses to resource problems and developing a community action plan in Vanuatu;
- investigating gender roles in semi-arid, marginalized communities in Southern Honduras;
- developing a plan to use geographic information systems in assessing land-use problems on the perimeter of Nakuru National Park in Kenya;
- analyzing gender roles in a Nepalese village changing from subsistence agriculture to livestock and milk production for the market;
- carrying out land-use planning in a participatory framework in Madagascar; and
- conducting participatory rural appraisals for community mobilization and planning in Botswana.

Research is concerned with the relationship among technological intervention, finite resources, and social change in the developing world, and with relationships between poor and affluent nations. I.D. also emphasizes collaborative research with other institutions.

The Program for International Development and Social Change is flexible, permitting students to design their own interdisciplinary curriculum for the study of development problems. It meets the needs of three different groups of students:

- It is one of the few programs in the U.S. offering a liberal arts B.A. degree focused on development. Students may major in international development or may take international development as a double major or a minor in conjunction with a related discipline such as geography, economics, government, or sociology.
- It provides an opportunity for qualified undergraduates interested in a career in the development field to complete a five-year B.A./M.A. degree.
- It provides a self-contained program for students coming from other universities to obtain the background to complete an M.A. in order to pursue a career in the development field.

Undergraduate Program

Undergraduates majoring in international development:

1. Attain an understanding of the development process and its political, economic, historical, theoretical, institutional, and ecological aspects.
2. Master basic skills, including quantitative skills and techniques of economic and social analysis; competence in a foreign language is strongly encouraged.
3. Develop an investigative/research approach to a problem and apply theoretical knowledge in an internship.
4. Pursue a career track—for example, resource management or gender and development—chosen with a faculty advisor.

Course Requirements for Majors

1. **Basic orientation:** Majors must take the introductory course I.D. 125, Development Problems; a course in development economics; and three additional core courses in politics, resource management, and sociocultural issues. Students transferring from other majors or universities may substitute equivalent courses.
2. **Area of specialization:** Majors will take at least four courses in an area of specialization selected with an I.D. faculty advisor. Students may follow one of several established tracks—for example, resource management, rural development, ethnicity and nationality, or gender issues. A student may design a course sequence, subject to approval by a faculty member, creating a

new focus. The area of concentration is an opportunity to link interest in development with a focus in a specialized field.

3. **Skill courses:** Majors must take a course in social sciences research methods and two courses from the following: computer science, statistics, GIS, cartography, conflict negotiations, or a language.
4. **Capstone seminar:** Seniors take this seminar in the spring term to explore advanced topics in international development.
5. **Internship:** Majors enroll in a one-credit internship related to international development. This may be combined with a junior year study abroad program.

B.A. Minor

The I.D. minor consists of six credits, four of which focus on a development theme identified by the student and approved by his/her advisor. The six include one introductory course, two 100-level courses, two 200-level courses, and one skills course from among those accepted for the I.D. major. No more than two credits can come from an internship or study abroad. They will be assessed for equivalence to the 100- or 200-level courses.

Honors Program

The Honors Program gives students the opportunity to conduct independent research on a topic of particular interest. Honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade point average of 3.25 overall and 3.5 in the ID major and who can demonstrate the appropriate research background to undertake independent research in ID.

To graduate with honors a student must successfully complete a two-semester independent honors project conducted under the supervision of a faculty member. A student must declare her/his intention to register for honors work no later than the end of spring semester of the junior year (for work to be completed during the senior year). Successful completion of an honors project will be recognized at Commencement.

Graduate Program

M.A. in International Development

The Master's Program in International Development affords graduate students the opportunity to work closely with faculty members from a range of disciplines. The program allows students flexibility in thesis research, while emphasizing a core of required classes designed to develop quantitative, analytical, and research skills. All I.D. graduate students must take each of the following three courses: development theory, project analysis and management, and research methods. Class work or demonstrated competence is required in two of the following: statistics, geographic information systems, computer science, remote sensing, conflict negotiation, budgeting/financial management, global ethnographics, or language relevant to a student's field work at an intermediate level of proficiency. Students may earn the M.A. degree by a) completing 8 courses, and thesis workshop, and a thesis; or b) completing 10 courses and a paper. Each path requires a total of 10 credits. There are opportunities for internships with development agencies in the U.S.; the program facilitates internships overseas, although students take the initiative for internships and fellowships or grants.

Students planning to write a thesis are encouraged to develop fields of specialization in preparation for thesis research. Previous specializations include women and development, resource management, development theory, rural development, international political economy, household economic behavior, local organization and participation, public health, credit and small enterprise, and comparative ethnic relations. The thesis is normally completed in the third or fourth semester and may include field research.

M.A. in Geographic Information Systems and International Development

The International Development Program and the Graduate School of Geography offer a new joint degree, within the existing I.D. M.A. degree, in Geographic Information Systems for International Development. This degree combines technical skills with the hallmarks of

Clark's I.D. program: sustainable natural resource management, gender analysis, and participatory processes in development. The development orientation permeates all aspects of the program, using theory to explore such issues as error and uncertainty, regional planning, use of local participation, and accuracy assessment at the local level.

The degree is a 12-month program for early and mid-career professionals with responsibilities in mapping, environmental database development, resource management, planning, and policy implementation and monitoring. The 12-month time frame enables professionals to take a one-year leave of absence to complete the degree. The program is technically oriented, emphasizing the development of higher-level skills required of the practicing GIS analyst.

Courses

016 INTRODUCTION TO INTERNATIONAL ECONOMIES/LECTURE

Using a global systems approach, surveys the pre-capitalist world, outlines the historical emergence of the world capitalist system, and examines contemporary processes of development and underdevelopment. It then surveys features of the world, such as multinational corporations, Fordism, post-Fordism, changing regional systems, environmental problems and the emergence of global culture. A comparative perspective course. Mr. Peet/ Offered every year

020 AMERICA AND THE WORLD/LECTURE, DISCUSSION

See History 020. Mr. Little/Offered every other year

032 AFRICA IN THE 21ST CENTURY

Introduces the dilemmas Africa faces in the coming century. Readings include a dual focus: those seeing only anarchy and chaos for Africa's future; and commentary on constructive and productive activities, much of it locally based. Students write several short papers culminating in recommendations to solve a problem in a particular country. Mr. Ford/ Offered every year

069 INTRODUCTION TO INTERNATIONAL RELATIONS/LECTURE, DISCUSSION

See Government 069. Mr. Vitalis/Offered every year

103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

Examines the historical and contemporary relationships of sub-Saharan Africa with Europe, the U.S., the Middle East, the Muslim World, and parts of Asia, and Latin America. Attention is paid to South Africa's relationships with the rest of the world before and after the fall of apartheid. Ms. Grier/Offered every year

109 INTERNATIONAL ENVIRONMENTAL CRISIS/ LECTURE, DISCUSSION

This course provides an awareness of contemporary global environmental conditions and historical and theoretical background to the present global environment, looks at such global environmental issues as global climate change, loss of biodiversity, tropical deforestation, and ozone depletion. Staff/Offered every other year

117 REVOLUTION AND POLITICAL VIOLENCE/ LECTURE, DISCUSSION

Analyzes the concept, causes, and process of revolution. Is revolution inevitable? How does it differ from terrorism, guerrilla warfare, or coups? In this course, the Russian and Chinese revolutions receive particular attention as 20th-century prototypes; comparisons are drawn to recent revolutions in Eastern Europe, the Middle East, and Latin America. Staff/Offered every year

118 FRESHMAN SEMINAR: AFRICA THROUGH LITERATURE/FIRST-YEAR SEMINAR

Explores the 20th-century literature of Africa to gain an appreciation of its richness and to understand the changes that have been taking place on that continent. Works focus on: the impact of colonialism on African societies, the hopes and disillusionment surrounding the struggle for and achievement of independence; the changing lives of African women; and the complexities of race and class in the liberation struggles across Africa. Staff/Offered periodically

120 INTRODUCTION TO SOCIAL ANTHROPOLOGY/LECTURE, DISCUSSION

Introduces methods and theories of socio-cultural anthropology and the variety of ways of life commonly defined as "culture." Considers elements of culture, including subsistence strategies, kinship structures, status hierarchies, health systems, and conflict management. Using case studies, examines how knowledge has been created by the world's peoples and how these indigenous knowledge systems have adapted to the development of the culture of global capitalism. No prerequisites. Staff/ Offered periodically

125 DEVELOPMENT PROBLEMS/LECTURE, DISCUSSION

Introduces issues in international development through such concerns as colonialism, theories of development and underdevelopment, the relationship between arms expenditures and development, economic growth versus equity, trade, aid, the impact of development processes on women, North-South relations, emergence of class, and political ideologies. Focuses on problems of food, population, and resources with case materials from India, Kenya, Zimbabwe, Nepal, Philippines, Ethiopia, and Bangladesh. Ms. Thomas-Slayter/Offered every year

127 POLITICAL ECONOMY OF THIRD WORLD UNDERDEVELOPMENT/LECTURE

Surveys leading development theories—environmental determinism, modernization theory, dependency/world systems theory, and Marxist theories. Considers the postmodern critique of development. A comparative perspective course. Mr. Peet/Offered every year

128 FAMILY AND SEX ROLES IN CROSS-CULTURAL PERSPECTIVE: AN ANTHROPOLOGICAL APPROACH/ LECTURE, DISCUSSION

Examines families and gender roles in cross-cultural perspective, using examples from Africa, India, China, the Americas, and the Philippines. Topics include kinship and gender in evolutionary perspective, social construction of gender, social reproduction and gender roles, functional and structural analyses of kinship patterns, division of labor, and politics of gender inequality. Students explore debates and theories concerning households, sexuality, gender, and kinship. No prerequisites. Staff/ Offered periodically

131 LOCAL ACTION, GLOBAL CHANGE/ LECTURE, DISCUSSION

Brings a global perspective to issues, cutting across regions, cultures, and nations at the end of the 20th century, examining such topics as: 1) homelessness across national boundaries; 2) family planning/spacing and access to birth-control technologies, including in rural Africa, Japan or Ireland; 3) AIDS in Worcester, New York, or Tanzania; 4) tribalism vs. globalism—the disparate inclinations of our world today. The focus is understanding the complexities of these issues to decide where we individually and as a community can "act" in "a world at risk." Mr. Ford, Ms. Miller/Offered every year

136 SUB-SAHARAN AFRICA: ISSUES AND PROBLEMS/LECTURE, DISCUSSION

Explores issues confronting sub-Saharan Africa, including the legacy of colonialism, the establishment of nation-states, and the role of parties and the military in the politics of selected countries. Women's roles, class conflict, alternative development strategies, the environment, regional conflicts, and the global economy are examined. Ms. Grier/Offered every other year

138 GENDER, SPACE, AND ENVIRONMENT/ LECTURE, DISCUSSION

Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use, and control of space and resources in environments—past, present, and possible. Regional focus on New England, a comparative perspective (cp) course. Ms. Rocheleau/Offered every year

143 TROPICAL DEFORESTATION/LECTURE, DISCUSSION

Provides an introduction to issues raised by large-scale tropical deforestation. Looks at issues in depth: What are the causes of tropical deforestation? How important is the biodiversity of tropical forests? Uses case studies of deforestation in, for instance, the Philippines and the Amazon basin to consider solutions. Staff/Offered periodically

161 CULTURAL IDENTITIES AND GLOBAL PROCESSES/LECTURE, DISCUSSION

Explores the impact of local, national, and international forces in the formation of cultural identities at a time of rapid social changes in the 1990s. Focuses on urban cultures to examine local cultural styles and identities and national identities as they are globally determined. Emphasizes the importance of time, place, and space to the emergence of new culturally diverse settings of the late 20th century. Examines the nature of social and cultural change in local, national, and global economic and political spaces. Ms. Bhachu/Offered every year

170 ECOLOGY AND ECONOMY OF THIRD WORLD SOCIETIES/LECTURE, DISCUSSION

Examines Third World societies, focusing on ecological and economic relations. Topics include colonialism and neo-colonialism; tribal, urban, and peasant peoples in development issues; roles of Third World elites; international trade agreements; and rebellion and indigenous efforts to determine cultural, technological, economic, and environmental growth. Focuses on Native South Americans, the Swazi, !Kung and Zulu of Africa, Zapotec of Mexico, Igorot of the Philippines, among others. Staff/Offered periodically

173 LATIN AMERICAN HISTORY SINCE 1825/ LECTURE, DISCUSSION

See History 177. Mr. Little/Offered periodically

174 INTERNATIONAL POLITICAL ECOLOGY/ LECTURE, DISCUSSION

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental "hot spots," following links to the world economy and planetary ecosystems. Explores connections of international, environmental, and economic policy, with everyday realities and possible ecological futures of people from the Amazon rainforest to Worcester. Offered as a first-year seminar (fulfills the comparative and verbal expression requirements) and lecture course (fullfills comparative perspective) in alternate years. Ms. Rocheleau/ Offered every year

176 COMPARATIVE ECONOMIC SYSTEMS/LECTURE, DISCUSSION

Examines variety of developed market economies and transitional and developing economies. Topics include Japan's industrial policy and business groups, Germany's social market economy and codetermination, Sweden's welfare state and labor unions, economic reforms in China and Russia, and economic development in Korea and Mexico. Prerequisite: Economics 10. Mr. Hsu/Offered every year

177 JAPANESE AND CHINESE ECONOMIES/ LECTURE, DISCUSSION

Surveys Chinese and Japanese economies—their development, institutions, and policies. Topics include historical background, agricultural development, industrial organization and development, fiscal and monetary policies, employment and labor, Sino-Japanese relations, and relations with the U.S. Prerequisite: Economics 10. Mr. Hsu/Offered every other year

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

Acquaints students with forces shaping the political system of contemporary South Africa. Colonialism, apartheid, African nationalism and the anti-apartheid struggle, the role of African women, politics since the election of Mandela, and South Africa's regional role are among the topics. Ms. Grier/Offered every year

179 THE HISTORY OF TRADITIONAL AFRICA/ LECTURE, DISCUSSION

Introduces the history of Africa south of the Sahara, beginning with the early civilizations of Kush, Axum, Ghana, Mali, Songhai, Benin, the Zanj, Congo, and Zimbabwe, and continuing to the arrival of Europeans. The approach is historical and anthropological. Fulfills the historical perspective requirement. Staff/Offered every other year

180 HISTORY OF MODERN AFRICA/LECTURE, DISCUSSION

Introduces themes of modern African history, beginning with precolonial Africa and considering four periods: (1) the imperial years, (2) the struggle for independence, (3) the 1960s as a decade of independence, (4) the 1970s and 1980s as a search for identity and development. Focuses on the years since 1945. Fulfills the historical perspective requirement. Staff/Offered every other year

181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

See History 181. Mr. Ropp/Offered every other year

183 MODERN CHINA/LECTURE, DISCUSSION

Introduces events, personalities, and concepts of importance for understanding China's history from the early 19th century to the present. Readings that present the Chinese view of events are used to supplement interpretative studies by Western scholars. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

184 MODERN JAPAN/LECTURE

See History 184. Staff/Offered every other year

185 LANDSCAPES OF THE MIDDLE EAST/LECTURE, SEMINAR

An array of landscapes, economies, and cultures comprise the Middle Eastern culture realm. Studies modernization and transformation of traditional Islamic and non-Islamic life and livelihood in the Middle Eastern cultural mosaic. Literature and ethnography supplement geographic analysis. Mr. Johnson/Offered every other year

189 INTRODUCTION TO REMOTE SENSING AND GEOGRAPHIC IMAGERY/LECTURE, LABORATORY

Introduces a powerful methodology for surveying and analyzing geographical phenomena. Examines aerial photography and satellite imagery and their analysis for interpreting, understanding, and representing the environment. Includes image-mapping, photogrammetry, and field surveying. A skills course in the geography major. Mr. Steward/Offered every year

207 POLITICS OF DEVELOPMENT: AFRICA, ASIA, AND LATIN AMERICA/SEMINAR

Examines debates surrounding development, underdevelopment, and dependency. Looks at politics in three countries from the three continents. Examines the role of political parties, bureaucracies, the military, extremes of wealth and poverty, gender, land distribution, environmental issues, and the global economy. Ms. Grier/Offered every other year

208 COMPARATIVE POLITICS OF WOMEN/LECTURE, DISCUSSION

Explores the roles, priorities, strategies, and theories of women in the politics of industrialized and developing countries. Causes for changes or lack of changes in women's political influence shed light on those countries' political systems. Discusses the politics of revolution, sexuality, labor, cross-race alliances, and elections. At least one course in government or women's studies strongly advised. Ms. Enloe/Offered every other year

212 WOMEN AND SOCIAL CHANGE/SEMINAR

Examines assumptions and theories about the status and roles of women from multidisciplinary, cross-national, and cross-cultural perspectives, emphasizing the Third World. Explores issues such as gender division of labor, relationships among class, gender, and ethnicity; the household economy; the impact of social policies on women's lives; the internationalization of capital and women's work; and women in politics and political organizations.
Ms. Thomas-Slayter/Offered periodically

218 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT

The world is changing more rapidly than at any time in history. This course reviews patterns of change in the Third World and examines the role of environment and resource management in development. In-depth case studies are developed. Permission of instructor required. Mr. Lewis/Offered every other year

219 THE POLITICS OF LAND: KENYA, ZIMBABWE, AND SOUTH AFRICA/SEMINAR

Examines the development of land ownership in each country and explores relationships between these developments and issues of wealth, poverty, political organization and repression, women's roles, and environmental degradation. Asks to what extent Kenya and Zimbabwe serve as models for the resolution of land reform and inequality in South Africa. Ms. Grier/Offered every year

220 CHILD LABOR AND THE STATE: COMPARATIVE PERSPECTIVES/LECTURE, DISCUSSION

Explores the role of children in the labor force of Asia, Africa, and Latin America. Why do children work? Should child labor be prohibited or should working children receive protection like adult workers? The role of governments in the perpetuation, regulation or abolition of child labor is examined. Other topics include: the role of gender, tourism and the sex industry, street children, child soldiers, education, and U.S. imports or child labor-produced goods. Prerequisite: ID 125. Ms. Grier/Offered every year

225 AFRICAN AMERICAN POLITICS/LECTURE, DISCUSSION

See Government 224. Ms. Grier/Offered every year

226 THE GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION

See Government 227. Mr. Vitalis/Offered periodically

227 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER/LECTURE, DISCUSSION

Explores the politics of "ethnicity" and "race" for such groups as Asian-Americans, black Britons, South African Afrikaners, Latin American Indians, Bosnians, and others. Government policies and population organizing are investigated. Features political implications of ideas about "masculinity" and "femininity" for race, ethnicity, and state power. Previous study of international development, comparative politics, history, sociology, or women's studies useful. Ms. Enloe/Offered every other year

228 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Examines theories of economic development, major problems confronting less-developed countries, and the policies and strategies appropriate for economic development. Topics include agricultural development, income distribution, industrialization strategies, foreign aid and investment, population, labor, and employment. Prerequisite: Econ. 11. Mr. Hsu/ Offered every other year.

229 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR

The world's drylands are prone to degradation, but they must support a rapidly growing population. The history, demography, behavioral characteristics, social and livelihood systems, and physical constraints of dryland ecosystems are analyzed. Evaluates management strategies in dryland use, identifying the obstacles constraining their growth and assessing their future development potential. Mr. Johnson/Offered every other year

232 POPULATION, ENVIRONMENT, AND DEVELOPMENT/VARIABLE FORMAT

Studies the statistical description and analysis of human populations. Focuses on relationships between and among (a) social, cultural, political, and economic forces, and (b) population structures, processes, and characteristics. Such demographic factors contribute to the understanding of social issues, such as the aging of the population, the changing status of women, rapid world urbanization, and Third World economic problems. Mr. London, Ms. Merrill/ Offered periodically

236 INTERNATIONAL AND COMPARATIVE RESOURCE POLICIES/LECTURE, SEMINAR

Examines international and comparative law/policy of water resources, fisheries, land, oceans and seas, wildlife, air, and nuclear power. The course defines the "resource problem(s)," analyzes existing institutions (property rights, management systems, and allocation regimes) and their responses to the problems, and considers guidelines for improving institutional arrangements and individual actions. Ms. Emel/Offered every other year

241 CITIES AND CULTURE: THE EUROPEAN CITY/LECTURE

Examines the city as a center of cultural stability and cultural change as reflected in urban form. Focuses on the city as a center of creativity. Includes London, Edinburgh, Paris, Vienna, and Manchester. Mr. Bowden/Offered every other year

249 THE FRENCH-SPEAKING WORLD/ LECTURE, DISCUSSION

Analyzes the problematic role of the French language and culture in parts of the world, especially Antilles, Algeria, and French-speaking Africa. Literature, social texts, and film explore such issues as bilingual colonialism, the question of negritude, the Algerian war, and conflicts between indigenous and French social codes. Prerequisite: two courses at 131 or above, or permission. Ms. Kaufmann/Offered every other year

250 PATTERNS OF ASIAN DEVELOPMENT/SEMINAR

Examines problems of development in selected Asian countries, focusing on the relationships among productivity, resource mobilization, culture and politics. Examines family and social structure, land tenure, patterns of conflict and cooperation, industrialization and urbanization, and political structures, emphasizing Japan, China, Philippines, Vietnam, India, and Indonesia. Staff/Offered periodically

251 NON-GOVERNMENT ORGANIZATIONS: CATALYSTS FOR DEVELOPMENT/SEMINAR

Many practitioners and theoreticians, disillusioned with governments in the development process, propose building nongovernment organizations (NGOs) as development catalysts. This seminar explores the proposal in light of the difficulties and progress NGOs have experienced. Ms. Seidman/Offered periodically

258 DEVELOPMENT AND REGIONAL INTEGRATION/SEMINAR

Most theorists believe developing countries should integrate their economies to take advantage of economies of scale required for large-scale basic industries. But, effective regional integration has proven difficult. This seminar explores explanations and solutions in order to propose and implement more effective regional integration schemes. Ms. Seidman/ Offered periodically

263 STATE, LAW, AND DEVELOPMENT/SEMINAR

Post-colonial optimism has given way to disillusionment with governments in developing countries in attaining democratic, sustainable development. This seminar provides an opportunity to research and assess evidence explaining governments' dismal record as a basis for improving the role of the state in the development process. Ms. Seidman/Offered periodically

265 MONEY, BANKING, AND PUBLIC FINANCE IN DEVELOPING COUNTRIES/SEMINAR

Explores the consequences of alternative approaches to domestic and international banking and financial institutions and the role of government in development finance in Third World countries. Ms. Seidman/Offered periodically

266 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

Offers an overview of the principles of conflict resolution that can be applied internationally as well as interpersonally. A general framework for the understanding of conflict is presented that includes: power-based, needs-based, interest-based, and the relationship-based conceptualizations of conflict resolution. Gives students a theoretical as well as practical experience of conflict. It explores some of the psychological obstacles that impede the resolution process and engages in a number of experiential exercises that help the student develop the interpersonal skills needed to transform conflict relationships. Ms. Hicks/Offered every year

269 THE AFRICAN CRISIS/SEMINAR

Focuses on the interface among political, economic, ecological, and developmental issues in Africa. Assumes that major dilemmas at national levels may have locally based management strategies that offer promise to lessen ecological and political pressures facing Africa. Mr. Ford/Offered periodically

270 POWER, IDEOLOGY AND SOCIAL CHANGE IN DEVELOPMENT/LECTURE, DISCUSSION

For people in developing areas, the process of development is often accompanied by the pressures of rapid social change. Development can widen the gap between those who have access to resources and those who don not, create opportunities for the exercise of power and the attainment of wealth, and place new demands on social relationships. These changes affect lifestyles, ideas about appropriate relationships between genders and generations, and the ways in which people construct ideas about themselves and their place in the world. This course examines the ways in which distributions of power and prestige, values placed on traditional lifeways, and expectations for the future of self, family, and community are all affected by the development process. Ms. Miller/Offered every year

272 INTERNATIONAL DIVISION OF LABOR/SEMINAR

What are the consequences of the increasingly interrelated features of the global political economy? This course focuses on the role of transnational corporations and financial institutions in the changing international division of labor and examines how these changes affect living standards, conditions of work, and incomes of workers in agriculture and industry in developed and developing countries. Ms. Seidman/Offered periodically

273 THE CREATION OF NATIONALISMS, NATIONALIST CULTURES, AND SYMBOLS

Nationalisms and nationalists cultures have grown dramatically in the 1990s. Explores symbols and cultural values that create and define nationalist cultures. Which "imagined communities," "invented traditions," and "symbolic economies" operationalize nationalist cultures? What is the material culture that defines nationalist movements? What are the key consumer commodities, cultural symbols, language, and dress codes? What is the role of gender? Focuses on culture and cultural symbols of nationalisms, explores their importance in the generation of strategic nationalist identities, and examines the cultures of nationalist resistance that may be inherent in the creation of nationalist trends. Ms. Bhachu/Offered every other year

275 POLICIES, PROJECTS, AND STRATEGIES FOR CHANGE: A FOCUS ON GENDER/SEMINAR

Explores gender as a variable in determining roles, responsibilities, rights, and opportunities in "developing countries." Considers methods of gender analysis for relevance to national policies and programs and their usefulness to the design, implementation, monitoring, and evaluation of projects. Focuses on community institutions and organizations and their roles in alleviating poverty and fostering sustainable development. Ms. Thomas-Slayter/Offered every year

277 GENDER, RESOURCES, AND DEVELOPMENT/SEMINAR

Considers gendered identities, affinities, control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of natural resources. Readings, lectures, and discussion focus on distinct perspectives of women and men as actors in natural resource use and management and in local, regional, and global ecological transformations. Ms. Rocheleau/Offered every year

280 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

Explores the ecology and physical geography of cities as systems built, inhabited, and "managed" by people. This class of ecosystem is often neglected, except in studies of pollution, yet is home to many people and to a surprising number of plant and animal species. Readings, lectures, discussion, and writings combine landscape and systems ecology with physical and urban geography to broaden understanding of city environments. Ms. Rocheleau/Offered periodically

281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE, DISCUSSION

Surveys life in the People's Republic of China from 1949 to the present. Includes a history of the People's Republic and such topics as politics, society, family life, economics, foreign relations, literature, and the arts. Mr. Ropp/Offered every other year

282 CHINESE WOMEN IN LITERATURE AND SOCIETY/LECTURE, DISCUSSION

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

283 TROPICAL ECOLOGY/LECTURE, DISCUSSION

Examines structure and function of several major tropical ecosystems (rainforests, savannas, wetlands, coastal zones, and deserts) from the perspective of systems ecology. Readings, lectures, and discussions focus on energy flows, material cycles, and species diversity and distribution. Explores patterns and process in tropical ecosystems (especially forests and savannas) under conditions of widespread land-use change. Ms. Rocheleau/ Offered every year

284 ENVIRONMENT AND DEVELOPMENT IN THE MIDDLE EAST AND NORTH AFRICA/LECTURE, DISCUSSION

From Afghanistan to Morocco, farmers, herders, and city dwellers have modified their environment in an effort to develop the region's resources. While many of these changes have been destructive, others have produced sustainable agricultural systems. Today population growth, infrequent zones of high agricultural potential, the constraints imposed by aridity, and limited mineral resources (except for oil) restrict development opportunities. The successes and failures that have followed from the efforts of Middle Eastern governments and societies to cope with these limitations and to control desertification, overgrazing, salinization, deforestation, and urban plight constitute the focus of this course. Prerequisite: any geography nature-society core course (e.g. 105, 184) or a comparable course in the Environmental School (e.g., ES 180) or in International Development, or by permission of instructor. Mr. Johnson/ Offered every other year

287 POLITICS AND POWER IN THIRD WORLD SOCIETIES

Examines the evolving nation-state in the Third World, connections between colonialism and Third World political patterns, the interaction between politics and internal economic and social forces, as well as the political impact of ideologies. Analyzes the politics of such groups as the landless; urban poor; women; and ethnic, religious, clan, or caste groups. Examines patron-client relations, political parties, self-help associations, and peasant mass movements for their roles in socio-economic and political change. Ms. Thomas-Slayter/Offered periodically

289 ADVANCED DEVELOPMENT THEORY/SEMINAR

This course assumes considerable background in development theory. It surveys changes in developmental thinking at an advanced level, focusing on the influence of postmodern social theory on discourses of development. Mr. Peet/Offered every year

290 SENIOR CAPSTONE SEMINAR

Focuses on advanced topics in International Development, emphasizing current important issues and student and programmatic interests. Several topics are analyzed each semester and include, for example, the dynamics of globalization and localization; women's rights as human rights; international refugees fleeing from economic and ecological disasters or military and political persecution; or the impact of the North American Free Trade Agreement (NAFTA) on residents North and South of the border. Ms. Thomas-Slayter/Offered every year

291 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

See History 387. Mr. Little/Offered every year

294 GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY/LECTURE, DISCUSSION

Focuses on emergent ethnographic concerns that attempt to capture fluid cultural processes and connections as they unfold in late-1990's global arenas. Deals with multiple-sited ethnography of movement, displacement, and replacement, and the global traffic in culture. Analyzes "traditional" ethnographies and ethnographic methods of the founding pioneers—including the work of the famous Clark Univeristy ethnographer, Franz Boas. The conventional ethnographic mode of an intense focus on a single site—often in recent times analysed in relation to a world system—is no longer a viable method. So how can we examine transnational connections and commodity circuits that most of us are a part of in the late 20th century? What methods of "tracking" can we implement to capture these fluid domains and borderless cultural and economic spaces? Indeed, how can we develop ethnographic methods of observation that can follow the object, trace cultural and consumer trends and track political events, influential persons, news media items and document their global impacts on local sites. Parminder Bhachu/Offered every other year

296 GIS AND LOCAL PLANNING/SEMINAR, PROJECT

Explores issues and procedures involved in the application of GIS to local government planning. Develops hands-on familiarity with the Arc/Info vector-based system and its application in database development (data conversion), routine data management, and planning. Prerequisite: Geography 190 and permission. Staff/Offered every year

297 PARTICIPATION AND ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

Focuses on community-based participation as a means to plan and implement sustainable practices. Examples of local resource user systems are investigated to evaluate how practices of individual managers in the Third World—farmers, herders, fishermen—impact the environment. Ms. Thomas-Slayter, Mr. Ford/ Offered every year

299 SEC. 1 READINGS IN INTERNATIONAL DEVELOPMENT/DISCUSSION

Variable credit and topics relevant to issues of international development. Staff/Offered every year

299 SEC. 2 RESEARCH IN INTERNATIONAL DEVELOPMENT/DISCUSSION

Variable credit, differing topics, may be associated with international development research projects. Staff/Offered every year

310 RESEARCH SEMINAR IN DEVELOPMENT GEOGRAPHY/SEMINAR

Designed for thesis- and dissertation-level students working in the areas of resources, development, ethno-ecology, social theory, and political economy in developing countries, who are developing proposals or pre-proposal research papers. Provides a forum for discussion, criticism, and practical advice. Emphasizes ethnographic approaches and qualitative field methods. Prerequisite: 314 or permission. Meets graduate skills requirement in Geography and International Development. Ms. Rocheleau/ Offered every other year

314 RESEARCH DESIGN AND METHODS/SEMINAR

Covers major topics in empirical social research design and methodology: problem definition, research strategies, measurement, sampling, data collection techniques and procedures, and proposal writing. Mr. Mitchell/ Offered every year

327 GEOGRAPHY AND SOCIAL THEORY/SEMINAR

Explores themes in contemporary social theory as they relate to geographical studies. Emphasis is on existential phenomenology, Marxism, structuralism, feminism, and postmodern social theory. Mr. Peet/Offered every other year

351 SEMINAR IN RESOURCE GEOGRAPHY: THEORY AND METHOD/SEMINAR

Examines theories and methods of resource estimation, allocation, and management, covering the scholarly literature of the field. Ms. Emel/Offered every other year

360 DEVELOPMENT THEORIES AND PHILOSOPHIES OF CHANGE/SEMINAR

A graduate seminar examining development theory, relating theory, issues, and practice with an emphasis on the evolution of ideas and the search for alternative approaches to development interventions. Ms. Seidman, Staff/Offered every year

361 DEVELOPMENT PROGRAMS AND PROJECT MANAGEMENT/SEMINAR

Explores relationships between development theory and project implementation and issues of program and project management. Topics include project design, implementation, management, budget monitoring, scheduling, and evaluation. Focuses on problem identification, developing project proposals, designing environmental and social impact assessments, and creating evaluation frameworks. Emphasizes case studies. Mr. Ford, Ms. Thomas-Slayter/ Offered every year

364 SEMINAR ON MONITORING AND EVALUATION DEVELOPMENT PROJECTS

Reviews the growing literature relating to the theory and methods of evaluation to learn from mistakes of past development projects in order to design more effective ones in the future. Participants think through the implications of the review in evaluating development projects of their own choice. Ms. Seidman/Offered periodically

369 THESIS WORKSHOP

The I.D. Thesis Workshop offers an opportunity to I.D. master's degree students to present work in process to faculty and graduate student colleagues for discussion, feedback, and reworking. The workshop meets throughout the semester with different students taking responsibility for presenting and critiquing work. The workshop is a required credit for students writing theses. Others are welcome to audit the workshop. Ms. Seidman/Offered every year

370 ANIMAL AGRICULTURE/LECTURE, DISCUSSION

Animals and humans have a long history of association, and humans rely on animals for food, fiber, labor, and companionship. Animals are important to increasing food production and improving diet quality in support of a growing human population. Terrestrial and aquatic animal systems and the theory and practice of their intensified exploitation are examined. Mr. Johnson/Offered every other year

387 TECHNOLOGY TRANSFER AND DEVELOPMENT

Investigates the effectiveness of the transfer of technology (GIS, GPS, remote sensing, and information networks) from the First to the Third World; analyzes the differential impact of these technologies on social groups in the Third World; discusses ethical issues related to the transfer of technology; and formulates approaches or solutions to overcome problems of technology transfer. Staff/Offered every year

392 THESIS RESEARCH

Master's degree candidates may register while working on research for their thesis. Staff/Offered every year

393 GIS AND INTERNATIONAL DEVELOPMENT

Required for all students in the M.A. Program in GIS and International Development. The fall seminar provides a mix of GIS exercises, a survey of natural resource management applications, and an overview of international development themes. The spring session focuses on research project development. Two summer sessions are dedicated to project analysis and presentation. Mr. Auble, Mr. Savitsky/ Offered every semester

395 ECONOMIC DEVELOPMENT AND POLICY ANALYSIS/SEMINAR

Reviews alternative approaches to planning for development in the Third World—from the World Bank to those suggested by a socialist perspective—to explores their implications for institutional change in industry, agriculture, trade, and finance. Students develop a term project to critique the formulation and implementation of development plans in a developing country. Ms. Seidman/Offered periodically

399 INTERNSHIP/FIELD WORK

Graduate students in international development may elect to do field work beyond the eight credits required for the master's degree. Internship is normally overseas for research related to the thesis. Staff/Offered every semester

For other I.D. courses, refer to the following under management.

321 HEALTH SYSTEMS

See HCM4800.

340 HEALTH CARE STRATEGIC PLANNING

See HCM5806.

380 HEALTH POLICY

See HCM4805.

MANAGEMENT

Faculty

Maurry Tamarkin, Ph.D., *dean: financial management, corporate finance*
Margarete Arndt, D.B.A.: *management of health care organizations, clinical practice patterns*
Barbara Bigelow, Ph.D.: *strategic management in health care facilities, corporate political strategy*
Robert C. Bradbury, Ph.D.: *health policy, health services research*
Gary N. Chaison, Ph.D.: *union structure, government and growth; comparative industrial relations; collective bargaining*
Christian J. Delaunay, Ph.D.: *international management, general management*
Dileep G. Dhavale, Ph.D., C.P.A., C.P.I.M.: *financial and managerial accounting*
Priscilla Elsass, Ph.D.: *organizational behavior, organizational theory*
Joseph H. Golec, Ph.D.: *finance, determinants of incentive compensation contracts for investment advisors and their impact on performance and risk taking*
Laura M. Graves, Ph.D.: *employee recruitment and selection, managing diversity in organizations*
Edward J. Ottensmeyer, Ph.D.: *strategic management, philosophy and business*
Charlotte A. Pryor, Ph.D.: *auditing, accounting information systems, management accounting*
Joseph Sarkis, Ph.D.: *operations management*
Richard B. Spurgin, Ph.D.: *derivative securities, stock futures and bond options*
R. P. Sundarraj, Ph.D.: *management information systems, database design*
Robert A. Ullrich, D.B.A.: *organizational theory and design*

Affiliate Faculty

Sarita Bhalotra, M.D., M.H.A.
Joan Cole Densberger, J.D., M.P.H.
N. Lynn Eckhert, M.D., D.P.H.
Philip C. Nasca, Ph.D.
John T. O'Connor, Ph.D.

Part-time Faculty

Roy C. Angel, M.B.A.
William E. Beaushene, M.A.
Edson D. de Castro, B.S.
John Y. Ding, Ph.D.
Douglas Gordan, M.B.A.
Irene Houle, M.B.A.
Laurence W. Marsh, M.B.A.
Thomas P. Millott, J.D.
Roberta S. Pittore, M.B.A.
John Rainey, M.B.A.
Steven B. Wolff, D.B.A.

Emeriti

Harold T. Moody, Ph.D.

Undergraduate Programs in Management

The Graduate School of Management offers four programs for undergraduates: the undergraduate major, the undergraduate minor, the five-year B.A./M.B.A. program, and the five-year B.A./M.S.F. program. Interested students should contact the assistant dean for academic affairs in the Graduate School of Management. Students should refer to the Graduate School of Management catalog for additional information on the M.B.A. and M.S.F. programs.

Major in Management

The management major incorporates a variety of disciplines to form a program that is both practical and broadly educational. Required and optional courses include offerings from a number of academic departments. The undergraduate management major and the M.B.A. and M.S.F. programs are accredited by the American Assembly of Collegiate Schools of Business.

The required curriculum for management majors consists of 10 prerequisite courses taken during the freshman and sophomore years, and eight required courses taken during the junior and senior years. A 2.0 cumulative grade point average in the prerequisite courses is required for credit toward the major. Management offers students a bachelor's degree with a professional emphasis, providing the prerequisites for job placement. Students interested in graduate study are encouraged to major in an area other than management and to consider one of the five-year programs.

Requirements for Management Majors

Prerequisite Courses:

Freshman/Sophomore Years

- MATH 113 Mathematical Problem Solving or MATH 120 Calculus I
- ECON 010 Economics: A Comparative Approach
- ECON 011 Principles of Economics
- ECON 160 Introduction to Statistical Analysis
- Environmental requirement (one of the following): EN 101, EN 102, EN 124, EN 157, ES 121, ES 122, ES 213, GOV 157
- MGMT 101 Principles of Accounting
- MGMT 104 Introduction to Management Information Systems
- MGMT 170 Managerial Communications
- MGMT 178 Business Law
- MGMT 203 Management Accounting

Required Courses:

Junior/Senior Years

- MGMT 210 Management and Behavioral Principles
- MGMT 240 Corporate Finance
- MGMT 230 Marketing Management
- MGMT 250 Operations Management
- MGMT 260 Business Policy
- MGMT 262 Business Ethics
- Two Management Electives

Undergraduate Minor in Management

Students whose primary interest is liberal arts, but who want exposure to business-related topics, should consider management as an undergraduate minor. The required curriculum for management minors consists of six prerequisite courses taken during the freshman and sophomore years, and four required courses taken during the junior and senior years. Students interested in graduate study toward an M.B.A. or M.S.F. degree are encouraged to minor in an area other than management and to consider one of the five-year programs.

Requirements for Management Minors

Prerequisite Courses:

Freshman/Sophomore Years

- MATH 113 Mathematical Problem Solving or MATH 120 Calculus I
- ECON 010 Economics: A Comparative Approach
- ECON 011 Principles of Economics
- ECON 160 Introduction to Statistical Analysis
- MGMT 101 Principles of Accounting
- MGMT 104 Introduction to Management Information Systems

Required Courses:

Junior/Senior Years

- MGMT 210 Management and Behavioral Principles
- MGMT 230 Marketing Management
- MGMT 240 Corporate Finance
- MGMT 250 Operations Management

Five-Year Programs

The Graduate School of Management offers undergraduate students an opportunity to earn a B.A. in a major, as well as an M.B.A. or M.S.F. degree. The program features:

1. An undergraduate major in any of the liberal arts disciplines at the University (management is not recommended as a major for this program);
2. Graduate courses, beginning in the senior year, leading to an M.B.A. or M.S.F. degree and helping students prepare for management positions in business, government, and nonprofit organizations; and
3. A well-rounded education that combines an undergraduate liberal arts education with a master's degree; students can earn both degrees in five years.

The Program Courses

The five-year programs involve four sets of learning experiences:

1. Courses in departments, such as economics and mathematics, that provide tools needed for graduate study;

2. The possibility of spending the junior year abroad;
3. Graduate courses taken in the senior year; and
4. Completion of the M.B.A. or M.S.F. program during the fifth year.

Student Advising and Entrance into the Program

Students should plan their undergraduate courses carefully to complete the requirements for both their major and the M.B.A. or M.S.F. degree in the time available. The management school's assistant dean for academic affairs is available to advise students interested in either five-year program.

Admission occurs after the sophomore year, but before the beginning of the senior year. Students must apply to the Graduate School of Management for admission. As part of the application, students must submit transcripts of undergraduate academic work and take the G.M.A.T. (Graduate Management Admission Test) for both programs.

Work Experience

Five-year students are encouraged to participate in internships, summer jobs, or other experiences for exposure to management issues and environments. The exposure improves a student's appreciation of graduate courses and enhances his or her credentials and qualifications for job placement.

Five-Year B.A./M.B.A. Program

Freshman/Sophomore Years

ECON 010 Economics: A Comparative Approach
ECON 011 Principles of Economics
ECON 160 Introduction to Statistical Analysis or PSYC 105 Quantitative Methods
MATH 113 Mathematical Problem Solving or MATH 120 Calculus I

Junior Year

Apply to M.B.A. portion of the program

Senior Year

Complete B.A. requirements
ACCT 4100 Foundations of Accounting
FIN 4200 Financial Management
HRM 4300 Organization Behavior
MKT 4400 Marketing Management
MIS 4500 Management Information Systems
OM 4600 Operations Management
MGMT 4700 Managerial Communications or MGMT 4701 Organizational Communications

Fifth Year

MGMT 4704 General Management
MGMT 4702 International Management and Global Competition
MGMT 4703 Business Law and Regulatory Policy
MGMT 4705 Business in Society
MGMT 4706 Business Policy
Five electives in M.B.A. Program

Five-Year B.A./M.S.F. Program

Freshman/Sophomore Years

ECON 010 Economics: A Comparative Approach
ECON 011 Principles of Economics
ECON 160 Introduction to Statistical Analysis
or
PSYC 105 Quantitative Methods
MATH 113 Mathematical Problem Solving
or
MATH 120 Calculus I

Junior Year

Apply to M.S.F. portion of the program

Senior Year

Complete B.A. requirements
ACCT 4100 Foundations of Accounting
MIS 4500 Management Information Systems
HRM 4300 Organization Behavior
MKT 4400 Marketing Management
FIN 4200 Financial Management
OM 4600 Operations Management
MGMT 4700 Managerial Communications
or
MGMT 4701 Organizational Communications
MGMT 4703 Business Law and Regulatory Policy

Fifth Year

- FIN 5201 Corporate Finance
- FIN 5202 Derivative Securities I
- FIN 5203 Investments
- FIN 5207 Derivative Securities II
- FIN 5208 Fixed Income Securities
- FIN 5281 International Finance
- Four electives in M.S.F. program

Courses

101 PRINCIPLES OF ACCOUNTING/LECTURE, DISCUSSION

A "user-oriented" approach teaches students an understanding of accounting information and the environment in which it is developed and used. Topics include: history of accounting, accounting cycle, accounting for assets, liabilities, and equity, and international accounting issues. Staff/Offered every semester

104 INTRODUCTION TO MANAGEMENT INFORMATION SYSTEMS/LECTURE, DISCUSSION

Emphasizes basic knowledge needed to understand the field of information systems. Topics include information and organization, database management, recent developments in computer technology and their effect on management, and information systems design and management. Staff/Offered every semester

170 MANAGERIAL COMMUNICATIONS/ LECTURE, DISCUSSION

Helps managers communicate with confidence by showing them how to prepare clear, concise memos, letters, reports, and proposals and deliver effective oral presentations. Through class participation and in-class writing exercises, students develop confidence in their ability to communicate. Staff/Offered every semester

178 BUSINESS LAW/LECTURE, DISCUSSION

Examines the legal framework in which U.S. businesses operate. Emphasizes areas of the law such as contract negotiation and provisions, the Uniform Commercial Code, government regulations, consumer protection, and tort liability. Provides students with an understanding of the business and legal environments that will guide future management decisions and inquiry. Staff/Offered every semester

203 MANAGEMENT ACCOUNTING/LECTURE, DISCUSSION

Emphasizes accounting from the management perspective. Students learn principles of management decision making using accounting information. Prerequisite: Management 101. Staff/Offered every semester

210 MANAGEMENT AND BEHAVIORAL PRINCIPLES/LECTURE, DISCUSSION

General principles of management are studied, emphasizing the behavior of people in organizational settings. Topics include principles of organization, decision making, leadership, motivation and rewards, job satisfaction, appraising employee performance, and the impact of demographic diversity on organizations. Staff/Offered every year

211 ORGANIZATION STRUCTURE AND PROCESS/ LECTURE, DISCUSSION

Surveys major concepts of organizational theory, applying these concepts to business problems. Topics include properties of organizational environments, organizational structure, organizational power and conflict, and organizational change. Prerequisite: Management 210. Staff/Offered periodically

225 HUMAN RESOURCE MANAGEMENT/ LECTURE, DISCUSSION

Covers general functions of human resource management, including job design, recruitment, management development and training, performance appraisal, employee rights, labor relations and collective bargaining, wages and fringe benefits, and compensation systems. Staff/Offered periodically

226 INDUSTRIAL RELATIONS/LECTURE, DISCUSSION

Introduces the concepts, theory and practice of labor-management relations. Topics include the development of the trade union movement; union organizing; the structure, practices and outcomes of collective bargaining; the administration of the collective agreement; dispute resolution procedures; and the public policy of labor relations. Staff/Offered periodically

230 MARKETING MANAGEMENT/LECTURE, DISCUSSION

Surveys the role of marketing in business and society. Topics include the marketing environment, marketing research and information systems, consumer behavior, the organizational consumer, products, pricing, distribution, promotion, international service, and nonprofit marketing. Prerequisites: Economics 010, 011; Management 101. Staff/Offered every year

231 MARKETING RESEARCH/LECTURE, DISCUSSION

Marketing research focuses on consumer behavior and retail advertising. Topics include primary and secondary data collection, questionnaires for attitude and awareness surveys, mail and phone surveys, personal interviews, focus groups, and data analysis techniques. Prerequisite: Management 230. Staff/Offered periodically

234 CONSUMER BEHAVIOR/LECTURE, DISCUSSION

Examines how people search for, purchase, use, evaluate, and dispose of the products, services, and ideas they expect to satisfy their needs. Emphasizes the issues of market segmentation and the diffusion of innovations. Ethical, legal, and public policy issues are also discussed. Prerequisite: Management 230. Staff/Offered periodically

240 CORPORATE FINANCE/LECTURE, DISCUSSION

Financial decision making is studied from the perspective of the internal financial manager. A study is made of valuation, cost of capital, capital structure, capital budgeting, and financial analysis. Prerequisites: Economics 010, 011, 160; Math 113 or 120; Management 101. Staff/Offered every year

242 INVESTMENTS/LECTURE, DISCUSSION

Covers investment principles, market behavior, and investment strategy. Investment principles include portfolio selection, fundamental analysis, portfolio theory, debt instruments and money markets, the stock option market, and alternative investments. Prerequisite: Management 240. Staff/Offered periodically

250 OPERATIONS MANAGEMENT/LECTURE, DISCUSSION

Provides overview of operations management systems, emphasizing model building and applications. Topics include forecasting, quality control, inventory management, material requirement planning, machine loading, job sequencing and scheduling, project management and control, decision theory, and linear programming. Prerequisites: Economics 010, 011, 160; Management 101, 104; Math 113 or 120. Staff/Offered every year

260 BUSINESS POLICY/CASE STUDIES/LECTURE, DISCUSSION

Describes the integration of major management functions (e.g., marketing, finance, and production) in the selection and execution of appropriate strategy. This capstone course should be taken during the senior year. Prerequisites: Management 210, 230, 240, 250. Staff/Offered every year

262 BUSINESS ETHICS/CASE STUDIES/LECTURE, DISCUSSION

The social, political, technological and ethical issues confronting modern corporations require contemporary managers to develop a broad knowledge base to deal with complex situations. This course examines the relationship between organizations and their many stakeholders. Managerial values and ethics are analyzed. Staff/Offered every year

284 FEDERAL TAX ACCOUNTING/LECTURE, DISCUSSION

A basic course in the principles of federal income tax laws that apply to individuals and organizations. Develops an understanding of the effects of tax considerations on business decisions. General rules and accounting principles, along with preparation of tax returns, are emphasized. Prerequisite: Management 101. Staff/Offered periodically

The Master in Business Administration Program

The Clark University M.B.A. program develops competence in basic management functions, skill in managing organizations, and an understanding of the global environment. Each graduate of Clark's M.B.A. program is able to demonstrate:

- Competence in each of the functional areas of management;

- In-depth understanding of one of the functional areas of management, new venture management, or health administration;
- Skill in integrating the management functions into an effective organization, and understanding of the legal, political, ethical, social, and environmental responsibilities of management;
- Appreciation of the global context in which most organizations function; and
- The leadership and communication skills needed to formulate and implement management decisions.

Curriculum

The M.B.A. curriculum includes 19 courses taken for credit, plus a noncredit mathematics review course that may be waived by students demonstrating competence in college-level mathematics. The 20 courses are grouped into four categories:

Foundation Courses

MATH 4000 Mathematics for Managers (not for credit)
ECON 4001 Management Economics
STAT 4002 Statistical Methods

Functional Courses

ACCT 4100 Foundations of Accounting
FIN 4200 Financial Management
HRM 4300 Organization Behavior
MKT 4400 Marketing Management
MIS 4500 Management Information Systems
OM 4600 Operations Management

General Management Courses

MGMT 4700 Managerial Communications or MGMT 4701 Organizational Communications
MGMT 4704 General Management
MGMT 4702 International Management and Global Competition
MGMT 4703 Business Law and Regulatory Policy
MGMT 4705 Business in Society
MGMT 4706 Business Policy

Elective Concentrations

Students must take five electives, three in one area of concentration and two others from two areas other than the area of concentration. Elective concentrations are as follows:

Accounting

ACCT 5106 Management Control Systems
ACCT 5107 Analysis of Financial Statements
ACCT 5104 Accounting Information Systems
ACCT 5103 Management Accounting
ACCT 5101 Financial Accounting and Reporting I
ACCT 5102 Financial Accounting and Reporting II
ACCT 5105 Financial and Operational Auditing

Environmental Management

EN 226 Environmental Hazards
EN 250 Technology and Environmental Assessment
EN 251 Limits of the Earth
EN 265 Quantitative Methods in Risk Analysis
EN 271 Groundwater Hydrology and Management
EN 281 Environmental Health Seminar

Finance

FIN 5201 Corporate Finance
FIN 5203 Investments
FIN 5205 Real Estate
FIN 5281 International Finance
FIN 5204 Financial Institutions
FIN 5202 Derivative Securities: Futures, Swaps and Options
FIN 5206 Tax Strategies and Management Decisions
FIN 5207 Derivative Securities II
FIN 5208 Fixed Income Securities

Global Business

FIN 5281 International Finance
HRM 5307 International Labor Relations
MKT 5482 International Marketing
MGMT 5783 Global Business Issues

Health Care Management

HCM 4800 Health Systems
HCM 5806 Health Care Strategic Planning
HCM 4802 Economic Aspects of the Medical Care Industry
HCM 4803 Legal Aspects of Health Care Administration
HCM 4804 Financial Management of Health Care Organizations
HCM 4806 Health Care Management
HCM 5804 Health Care Quality Improvement

Human Resource Management

HRM 5302 Organization Structure and Process
HRM 5304 Diversity in the Workplace
HRM 5303 Career Development
HRM 5301 Human Resource Management
HRM 5305 Industrial Relations
HRM 5306 Collective Bargaining
HRM 5307 International Labor Relations
HRM 5308 Consulting Strategies and Skills

Information Systems

MIS 5501 Database Management Systems
MIS 5502 Decision Support Systems
MIS 5503 Telecommunication Systems
MIS 5504 Software Methodologies
MIS 5505 Management of Information Technologies

Marketing

MKT 5401 Marketing Research
MKT 5404 Sales and Sales Management
MKT 5406 Market Pricing
MKT 5402 Consumer and Industrial Buyer Behavior
MKT 5482 International Marketing
MKT 5407 Services Marketing
MKT 5405 Business to Business Marketing
MKT 5403 Advertising and Promotion
MKT 5494 Product Management
MKT 5408 Marketing Strategy Simulation

New Venture Management

MKT 5494 Product Management
MGMT 5790 New Venture Management
MGMT 5791 New Ventures Seminar
MGMT 5793 Strategic Management of Technology
MGMT 5792 Management Consulting Projects

(An M.B.A. in Health Services is under development for the fall of 1998).

Expanded Accounting Concentration

The expanded accounting concentration satisfies the upcoming 150-hour, postsecondary education requirement for certified public accountant candidates. This requirement, which currently is law in more than 20 states, is expected to affect Massachusetts C.P.A. candidates within five years. Clark's expanded accounting concentration satisfies this requirement and allows students an opportunity to prepare for the C.M.A. examination. Students pursuing this option must complete the foundation, functional and general management courses, along with the following electives:

ACCT 5104 Accounting Information Systems
ACCT 5103 Management Accounting
ACCT 5101 Financial Accounting and Reporting I
ACCT 5102 Financial Accounting and Reporting II
ACCT 5105 Financial and Operational Auditing
FIN 5206 Tax Strategies and Management Decisions

The Master of Science in Finance Program

The Clark University M.S.F. program builds on a solid foundation of business and quantitative skills to enable students to apply advanced financial theories when solving complex financial management problems.

Students also have the opportunity to obtain valuable career-related work experiences. In addition to classroom studies, students participate in field work, internships, and projects closely supervised by faculty.

Curriculum

The curriculum for the M.S.F. program is as follows:

- STAT 4002 Statistical Methods*
- ECON 4001 Management Economics*
- ACCT 4100 Foundations of Accounting*
- MIS 4500 Management Information Systems*
- HRM 4300 Organization Behavior*
- MKT 4400 Marketing Management*
- OM 4600 Operations Management*
- MGMT 4700 Managerial Communications*
- MGMT 4703 Business Law and Regulatory Policy*
- FIN 4200 Financial Management*
- FIN 5201 Corporate Finance**
- FIN 5202 Derivative Securities I**
- FIN 5203 Investments**
- FIN 5207 Derivative Securities II**
- FIN 5208 Fixed Income Securities**
- FIN 5281 International Finance**
- Four electives in M.S.F. program

* These courses can be waived upon approval with a passing grade of a "B" or better in the appropriate management course from an undergraduate business program.

** These courses can be replaced with an elective course upon approval with a minimum of a "B" grade earned in a graduate course.

Full-time and Part-time Options/ Class Locations

The M.B.A. and M.S.F. Programs are accessible to both full- and part-time students. Clark operates on a semester system. During the fall and spring semesters, classes are held from 9 a.m. until noon and from 1 p.m. until 4 p.m. at the Clark campus. Classes meet from 6 p.m. to 9 p.m. at Clark and in Westborough at the Massachusetts Technology Park Corporation near the intersection of Route 9 and Route 135 West. All classes meet once a week, on Monday, Tuesday, Wednesday, or Thursday. Summer sessions are held at both campuses, with classes meeting twice weekly in the evening from mid-May to the end of June (Worcester and Westborough) and from mid-July to the end of August (Worcester).

Academic Policies

General Graduation Requirements

Candidates for the M.B.A. degree must meet the requirements of 20 courses: 15 required and five elective courses. For the accounting concentration, 15 required and six elective courses (a total of 21) must be completed. Candidates for the M.S.F. degree must complete 16 required and 4 elective courses. Students must pass a minimum of 10 courses (excluding MATH 4000) in the Graduate School of Management to meet the residency requirement. A maximum of 10 courses may be waived and/or transferred. Students usually are permitted a maximum of six years from the date of enrollment in the M.B.A. or M.S.F. Program to complete all degree requirements. The minimum grade point average required for graduation is a 3.0 (B).

Course Waivers

M.B.A. students may apply for waivers from the three foundation courses, the six functional courses, and the business law course. M.S.F. students may apply for waivers for the courses as listed previously.

Course waivers are based on transcript reviews, examinations, or both and are granted only for courses taken before the student's matriculation at Clark. A waiver reduces the number of courses the student must take. Typically, a waiver is granted when an entering student presents evidence of having passed an equivalent graduate-level course, or two or more baccalaureate courses, with grades of B or better in the relevant subject area. Waiver examinations are required when such course work has not been taken in programs accredited by the American Assembly of Collegiate Schools of Business (A.A.C.S.B.). Waiver examinations are offered by the Graduate School of Management during orientation in September and January. Waivers depend in part on how recently a substitute course was taken: for example, courses taken more than six years before the date of application for waiver are not acceptable.

Students applying for waivers should submit a Request for Course Waiver form with their application to the Admissions Office. The opportunity for waiving courses exists only during a student's first year in the program. Waivers must be approved before the registration deadline.

Transfer Credit and Residency Requirement

M.B.A. and M.S.F. students may receive transfer credits for no more than two graduate-level courses taken at schools accredited by the A.A.C.S.B. Usually, transfer credits are assigned only to elective courses. The student must have earned grades of B or better, and the credits from the course(s) must not have applied to another degree. Using transfer credits, students can reduce their degree requirements by two courses. Prior approval, which is granted by the assistant dean for academic affairs, is required for transfer credit after the student has matriculated in the M.B.A. or M.S.F. program. Grades from transfer courses are not calculated into a student's Clark grade-point average. Generally, approval is granted for appropriate course work that is not available at Clark. Regardless of the number of courses transferred or waived, M.B.A. and M.S.F. candidates must pass a minimum of 10 courses (excluding MATH 4000) taken at Clark to meet Clark's residency requirement.

Grade-Point Average

Master's degree candidates must maintain a minimum grade-point average of 3.0 to remain in good standing and eligible for graduation (A = 4.0 points, B = 3.0 , C = 2.0, and F = 0: + or - symbols attached to letter grades increase or decrease them, respectively, by 0.3). Waived courses, incomplete courses and courses taken outside Clark University are not included in computations of grade-point averages.

Grading System

Letter grades are applied as follows:

A Outstanding
B Good
C Marginal Pass
F Failing
I Incomplete: Incompletes are given at the discretion of the instructor when circumstances beyond the student's control prevent him or her from meeting specific out-of-class course requirements. Students have one year from the date of the last class meeting of the course to make up outstanding course work. Incomplete courses will be converted to failures if not completed within the specified year.
W Withdraw: Indicates that the student withdrew from the course. Students may not withdraw after the tenth scheduled class meeting.

Grade Changes

Once grades have been submitted to the registrar, grade changes can be made only if the instructor certifies in writing that the grade to be altered resulted from an error.

Full-time Students

Students must be registered for at least three courses in a given semester to be considered a full-time student in the Graduate School of Management.

Review of Graduate Standing

All student academic records are reviewed each semester. Students with cumulative grade-point averages of 3.0 or more are considered to be in good standing. While the grade of C earned in a course is a passing grade, a cumulative grade-point average of B is required for graduation. Any student whose cumulative grade-point average falls below 3.0 is not considered to be performing adequately. Students are placed on academic probation when they have taken four or more courses and their cumulative grade point average falls below 3.0. Students who remain on academic probation after taking eight courses may be dismissed from the Graduate School of Management.

Leave of Absence

Students currently matriculated in the Graduate School of Management may take an official leave of absence for up to one year. Leave is granted by the assistant dean for academic affairs or the director of the M.H.A. program on written application by the student. Leaves may be granted for work, health, travel, or personal development reasons. Students who do not register for classes in the semester following the leave of absence will be withdrawn and must reapply for admission.

Courses

(See the Graduate School of Management Catalog for more information.)

MATH 4000 MATHEMATICS FOR MANAGERS

Assists students whose skills in mathematics are undeveloped. Offered Pass/Fail and does not carry graduate credit. Six modules are included: a review of algebra, linear algebra, introduction to differential calculus, introduction to integral calculus, applied business mathematics, and computer software applications.

ECON 4001 MANAGEMENT ECONOMICS

Provides a framework for analyzing the flexible multiproduct firm, as well as competitive and cooperative business situations from a strategic (game theoretic) perspective. Topics include demand analysis, production and cost analyses, flexible manufacturing, market structure and strategic behavior, pricing practices, government regulation, and decision making under uncertainty. (Prerequisite: MATH 4000)

STAT 4002 STATISTICAL METHODS

In an increasingly competitive environment, firms have come to rely on quantitative methods for data analysis and decision making. Topics include probability theory, sampling theory, the central limit theorem, estimation, inference, hypotheses testing, regression analysis, and analysis of variance. Students learn to apply these "tools" and to interpret results. (Prerequisite: MATH 4000)

ACCT 4100 FOUNDATIONS OF ACCOUNTING

Managers use accounting data to measure and evaluate organizational performance and to make decisions. This course introduces accounting as "the language of business" by identifying and discussing the basic principles and concepts. Topics include the accounting process, financial reporting and accounting principles, and the application of accounting information decision processes.

ACCT 5106 MANAGEMENT CONTROL SYSTEMS

Studies organizational planning and control and analyzes the ways in which management accounting practices can aid planning and control processes. Topics include management control systems, performance measurements, organizing for control, budget planning, and measuring divisional performance. (Prerequisite: ACCT 4100; HRM 4300 is recommended)

ACCT 5107 ANALYSIS OF FINANCIAL STATEMENTS

Teaches interpretation of financial statements and reports, using analytical techniques, and communication of the results. (Prerequisite: ACCT 4100)

ACCT 5104 ACCOUNTING INFORMATION SYSTEMS

Explains the control and accounting procedures used in collecting, measuring, summarizing, and reporting financial data generated by an organization's operating units. Emphasizes procedural techniques and studies the flow of financial data through an organization's accounting system. (Prerequisites: ACCT 4100 and MIS 4500)

ACCT 5103 MANAGEMENT ACCOUNTING

Covers collection and analysis of cost data, methods of cost control, and the use of data for managerial decision making in manufacturing and nonmanufacturing organizations. Topics include product costing, decision models, cost control, and performance evaluation issues. (Prerequisite: ACCT 4100)

ACCT 5101 FINANCIAL ACCOUNTING AND REPORTING I

Provides a foundation for solving accounting problems by introducing topics important to understanding the complexities of financial systems. The conceptual framework of accounting is discussed and used to study the recognition and measurement of assets, liabilities, stockholders' equity, and the development of income statements and balance sheets. (Prerequisite: ACCT 4100 or its equivalent)

ACCT 5102 FINANCIAL ACCOUNTING AND REPORTING II

Continues Financial Accounting and Reporting I, addressing accounting literature areas such as accounting for income taxes, pensions, leases, statement of cash flows, and disclosure for financial reporting. Addresses advanced topics such as business combinations, consolidated financial statements, and accounting for partnerships. (Prerequisite: ACCT 5101)

ACCT 5105 FINANCIAL AND OPERATIONAL AUDITING

Covers the fundamental aspects of financial auditing, including management's responsibility for financial statements, legal liability of auditors, evaluation of internal control structures, substantive systems tests, and audit reports. Operational auditing and environmental auditing are also covered. (Prerequisite: ACCT 4100)

FIN 4200 FINANCIAL MANAGEMENT

Managers invest to optimize the size and timing of future cash flows and to minimize accompanying risks with the goal of increasing firm value. The other major decisions of optimal capital structure and dividend policy are considered under this same goal. (Prerequisites: ECON 4001, STAT 4002)

FIN 5201 CORPORATE FINANCE

Extends the discussion from FIN 4200 of the major financial issues facing the corporation. Students learn additional finance theory and gain practice applying this theory to actual problems through case analyses or additional readings. (Prerequisite: FIN 4200)

FIN 5203 INVESTMENTS

Topics include investment principles, market behavior, and investment strategies. Examines the risks associated with, and the returns available from, marketable securities. In addition, provides a risk-return analysis of alternative investment vehicles, such as options and futures. Views of investment professionals are presented live and by video records. (Prerequisite: FIN 4200)

FIN 5205 REAL ESTATE

Covers the analysis and valuation of real estate investments, focusing on the selection and financing policies for real property investments, which are shaped by spatial, legal, governmental, and tax factors. (Prerequisite: FIN 4200)

FIN 5281 INTERNATIONAL FINANCE

Emphasizes managing foreign exchange risk by use of international currency and bond markets. Descriptions of these markets and hedging theory are presented by lecture. Problems encountered by financial managers in firms having international financial functions are discussed through case analysis. (Prerequisite: FIN 4200)

FIN 5204 FINANCIAL INSTITUTIONS

The roles of banks and nonbank financial intermediaries in an advanced industrial economy are analyzed. Topics include the study of financial markets and institutions, the major financial intermediaries in the U.S. economy, interest rates and how they are set, government regulatory policies for financial institutions, and the impact of recent institutional and legislative changes on financial intermediaries. (Prerequisite: FIN 4200)

FIN 5202 DERIVATIVE SECURITIES I

Since the 1970s, U.S. and world financial and commodity markets have experienced substantial, unexpected variations in market-clearing prices. Derivative securities have evolved over the past 20 years to cushion the financial risks associated with unexpected price changes. Students learn to value such derivative securities and combine them to achieve hedging or speculative objectives. (Prerequisite: FIN 4200)

FIN 5206 TAX STRATEGIES AND MANAGEMENT DECISIONS

Covers the fundamentals of individual and corporate taxation, including an analysis of tax policy, structure, legal hierarchy and procedure; discusses tax aspects of the common forms of business organization; and examines tax considerations in implementing employee benefit plans. Basic foundations of international tax are addressed.

FIN 5207 DERIVATIVE SECURITIES II

Although the quantity and complexity of derivative securities has exploded in recent years, there are basic mathematical tools that can be used to accurately place a value on any derivative, no matter how complex. This course focuses on learning these tools and understanding how they are applied to standard derivatives such as futures, options and swaps. The course will also focus on applying these tools to current financial engineering problems. (Prerequisite: FIN 5202)

FIN 5208 FIXED INCOME SECURITIES

This course examines fixed income securities like U.S. Treasury bills, notes, bonds, corporate bonds and mortgages and then analyzes some of the derivatives based upon these securities. The theory of valuation for fixed income securities is presented along with models of the term structure of interest rates. Much of this course is devoted to using personal computes to model the term structure as a basis for valuation. (Prerequisite: FIN 4200)

HRM 4300 ORGANIZATION BEHAVIOR

Reviews theory and research on individual and group behavior in organizations. Topics include interpersonal communications, crosscultural relations, motivation, group structure and processes, and leadership. The interpersonal and legal issues associated with managing a diverse workforce are covered. Self-assessment instruments, case discussions, role plays, and simulations are used.

HRM 5302 ORGANIZATION STRUCTURE AND PROCESS

Explores ways in which organizational structure and processes enable people in organizations to work effectively. Topics include organizational structure and design, environmental fit, organizational culture, conflict and power, and organizational change. Experiential exercises and case discussions are used. (Prerequisite: HRM 4300)

HRM 5304 DIVERSITY IN THE WORKPLACE

The race and gender composition of the U.S. work force has become increasingly diverse. This seminar explores the complex dynamics that arise from racial, ethnic, and gender diversity in organizations. It examines the problems that arise in diverse organizations, the sources of these problems, and possible solutions. (Prerequisite: HRM 4300)

HRM 5303 CAREER DEVELOPMENT

Helps students develop career management skills appropriate to any level of career development, from making initial career decisions to later career changes. Self-assessment instruments, exercises, and cases are used. Topics include self-assessment, career decision making, job search strategies, organizational assessment, and socialization processes. (Prerequisite: HRM 4300)

HRM 5301 HUMAN RESOURCE MANAGEMENT

Faced with pressures from the changing work force, increasing international and domestic competition, and government regulations, employers must continually re-evaluate employment policies and practices, ensuring compatibility with the needs and concerns of employees. Job analysis, recruitment, training, performance appraisal and selection, compensation, and union-management relations are discussed.

HRM 5305 INDUSTRIAL RELATIONS

Introduces the concepts and practice of the relationships among employees, unions, and employers. Topics include the development of the trade union movement; the structure, practices, and outcomes of collective bargaining; the administration of the collective bargaining agreement; dispute resolution procedures; and the evolution of public policy toward labor relations.

HRM 5306 COLLECTIVE BARGAINING

Collective bargaining is how the terms and conditions of employment are negotiated. Topics include the evolution of bargaining, theories of bargaining power and behavior, relevant legislative frameworks, and the grievance procedure. The range of bargaining issues is described, along with bargaining structures. The grievance procedure is examined with respect to the application and interpretation of agreements.

HRM 5307 INTERNATIONAL LABOR RELATIONS

Provides an international perspective on labor relations by comparing labor union activities, non-union forms of worker representation, and labor legislation in several countries. Topics include collective bargaining and wage determination, union growth, labor disputes, protection against unfair dismissal, grievance procedures, and employee participation in management decision making.

HRM 5308 CONSULTING STRATEGIES AND SKILLS
Consultants are often employed by management to analyze and resolve continuing organizational problems. This course takes a practical approach to learning about the consultant's role through the use of cases and consulting projects. Topics covered include problem definition and contracting, organizational diagnosis and change management, the management of consulting relationships, and the consultant's use of self. (Prerequisite: HRM 4300)

MKT 4400 MARKETING MANAGEMENT
An organization's link to its market is a crucial aspect of management. Companies succeed by responding to the needs of their customers. Teaches students how to understand customers and markets through structural analyses and market research, and helps students develop marketing programs and solutions that satisfy customers and fulfill organizational objectives. (Prerequisites: ECON 4001, STAT 4002)

MKT 5401 MARKETING RESEARCH
Provides knowledge of how and why marketing research is used to solve marketing problems. Topics include problem identification and definition, research design, questionnaire design and construction, project implementation, sampling, data collection and interpretation, and presentation and reporting of research findings. Students may undertake research projects for actual clients. (Prerequisite: MKT 4400, STAT 4002)

MKT 5404 SALES AND SALES MANAGEMENT
Sales management integrates personal selling and marketing management, with an emphasis on relationship selling. The course focuses on industrial sales versus retail sales. Topics include techniques of personal selling; recruiting, training, organizing and motivating the sales force; compensation; forecasting; budgeting; and control. Legal and ethical issues are discussed. (Prerequisite: MKT 4400)

MKT 5406 MARKET PRICING
Companies use pricing strategies to gain market share, meet profit goals, or maintain the status quo. This course presents a management approach to pricing products and services in consumer, industrial, and "reseller" markets. Topics include bargaining tactics, bidding strategies, pricing product lines for complex channels of distribution, life cycle and learning curve pricing, and intrafirm transfer pricing. (Prerequisite: MKT 4400)

MKT 5402 CONSUMER AND INDUSTRIAL BUYER BEHAVIOR
Understanding consumer behavior is essential to defining and maintaining a market. This course examines the purchasing behavior of individuals and groups. Topics include complex decision-making models, buying habits, attitude theory, and the buying behavior of organizations. (Prerequisite: MKT 4400)

MKT 5482 INTERNATIONAL MARKETING
Examines the challenges companies encounter as they enter international markets. Text and readings explore marketing problems facing joint venture and multinational firms, as well as the exporter and licenser. Covers marketing activities in the context of international operations, including marketing research, product policy, pricing, distribution, promotion, planning, organization, and control. (Prerequisite: MKT 4400)

MKT 5407 SERVICES MARKETING
Focuses on the marketing implications of service intangibility, the inseparability of production and consumption, and conflicting server roles. These problems apply to an array of service organizations, including retailing and health care. Models of the service organization are presented with insight developed through readings, cases, and interviews. (Prerequisite: MKT 4400)

MKT 5405 BUSINESS-TO-BUSINESS MARKETING
Business-to-business marketing is the marketing of goods and services to commercial enterprises, governments, and nonprofit institutions. Topics include industrial market segmentation, product development, pricing, personal selling, promotion, buyer behavior, and distribution.

Additional topics are direct marketing, research and development, purchasing, and corporate planning. (Prerequisite: MKT 4400)

MKT 5403 ADVERTISING AND PROMOTION
Promotion is communication intended to inform, persuade, or remind people of products or services. Advertising is impersonal communication of ideas, goods, or services paid for by an identified sponsor and is one of the most common and useful types of promotion. The course integrates international, legal, and ethical aspects of promotion and covers topics such as media selection, public relations, and personal selling. (Prerequisite: MKT 4400)

MKT 5408 MARKETING STRATEGY SIMULATION
Teams of students will make both strategic and tactical decisions in a simulated competitive marketing environment. Moreover, the teams will dynamically modify their strategies in response to market evolution. Experimental learning from the competitive game will be supplemented by case discussions and readings on competitive marketing strategy development. (Prerequisite: MKT 4400)

MKT 5494 PRODUCT MANAGEMENT
Product managers develop marketing plans, see that they are implemented, monitor results, and take corrective action. This course develops conceptual and decision-making skills in marketing planning, product development and modification, product positioning and promotion, forecasting and budgeting. (Prerequisite: MKT 4400)

MIS 4500 MANAGEMENT INFORMATION SYSTEMS
One of the most important aspects of computing, information systems are used to achieve competitive advantages and create new opportunities, products, and services. This course provides knowledge of hardware, software, database management, data communication, systems analysis and design, and functional application areas, such as medicine, accounting, and manufacturing.

MIS 5501 DATABASE MANAGEMENT SYSTEMS
Database management systems play an important role in meeting the information needs of an organization. A poorly designed database may result in providing incomplete, wrong, and anomalous information. The primary objective of this course is to study the techniques used in designing databases that provide the correct information to nontechnically oriented users. Other topics include distributed databases and expert systems. (Prerequisite: MIS 4500)

MIS 5502 DECISION SUPPORT SYSTEMS
Optimization modeling techniques can potentially be used to address a wide range of management problems. Application of these techniques in today's business environment requires robust, microcomputer-based softwares to solve the models. In this course, students examine various optimization modeling techniques; softwares for solving models; and cases of how companies have developed and used optimization-based decision support systems to address real-world problems. (Prerequisite: OM 4600)

MIS 5503 TELECOMMUNICATION SYSTEMS
Telecommunication technologies have made a lasting impact on the manner in which information is transmitted within and among organizations. This course provides students with a working knowledge of the technical and managerial aspects of communication systems. On completion of the course, students will be able to analyze the types and components of communication systems and make an extensive comparison of the different types. (Prerequisite: MIS 4500)

MIS 5504 SOFTWARE METHODOLOGIES
Programming methods used in the development of Information Systems (IS) software range from third-generation to the more recent object-oriented ones. This course examines the methodologies that are periodically in use, with the aim of imparting to students the ability to select the one that best suits the requirements of a particular IS. Topics include visual, object-oriented, client-server, and Internet programming. (Prerequisite: MIS 4500)

MIS 5505 MANAGEMENT OF INFORMATION TECHNOLOGIES
To effectively plan the Information Technology (IT) needs of an organization, managers must assess the impact of IT and the role it plays in the context of organizational strengths and

goals. Through the use of case studies, this course is designed to provide students the insight required to make such appraisals. (Prerequisite: MIS 4500)

OM 4600 Operations Management
Operations management involves the use of resources to create goods or services that satisfy the needs of customers. This course develops students' abilities to identify and solve operating problems. Topics include: modeling concepts, linear programming, inventory management, MRP, JIT, quality assurance, project management and control. (Prerequisites: MATH 4000, STAT 4002, MIS 4500)

OM 5601 Optimization for Managers
Provides an overview of quantitative, practical tools used to solve management problems. Explanation of the fundamental ideas behind these techniques helps students apply them to real-world situations. Optimization techniques studied include heuristics, simulation, shortest path, network models, and dynamic programming. (Prerequisite: OM 4600)

OM 5602 Applied Business Forecasting
Accurate forecasts are important for making management decisions. Forecasting projects are drawn from marketing, finance, economics, organizational behavior, strategy, and operations management areas. Topics include forecasting with simple and multiple regression; time series analysis, including classical and A.R.I.M.A. methods; and exponential smoothing models. (Prerequisite: STAT 4002)

OM 5603 Operations Technology Management
In the growing international marketplace, firms must be able to compete on the basis of costs, productivity, and quality. This course compares traditional manufacturing methods and emerging trends, such as just-in-time, flexible manufacturing systems, total quality management, and computer integrated manufacturing. (Prerequisite: OM 4600)

MGMT 4700 Managerial Communications
Helps managers communicate with confidence by showing them how to prepare clear, concise memos, letters, reports, and proposals, and deliver effective oral presentations. Through class participation and in-class writing exercises, students develop confidence in their ability to communicate.

MGMT 4701 Organizational Communications
Increases students' knowledge of the theory and practice of communication in organizations. Topics include interpersonal communication issues, including the effects of culture, status, and gender, and organizational issues such as crisis communication and public relations. Much of the course is devoted to skill development, emphasizing written and oral presentations.

MGMT 4702 International Management and Global Competition
Managers of companies operating in international markets face economic, legal, political, and social problems not encountered by companies operating only in domestic markets. This course focuses on the interaction of the manager with various constituencies and aspects of an international/multinational firm. (Prerequisites: ECON 4001, HRM 4300)

MGMT 4703 Business Law and Regulatory Policy
The legal framework within which U.S. businesses operate determines the rights and obligations of persons taking part in business transactions. Through case studies and selected readings, this course emphasizes areas of the law encountered by managers: contract negotiation and provisions, the Uniform Commercial Code, government regulations, consumer protection, and tort liability.

MGMT 4704 General Management
Analyzes general management problems from a variety of industries and organizations. Written reports and oral presentations may be critiqued by faculty and managers. Presentations may be video taped and reviewed for content and style. The course uses cases and lectures/discussions. (Prerequisites: foundation and functional courses)

MGMT 4705 Business in Society

Managers are confronted with decisions complicated by social, political, technological, legal, and ethical issues. This course examines themes that underlie managerial decision making: core values and assumptions at the foundation of the U.S. business subculture, ethical issues arising in the context of decisions, and the impact of political environments on management decisions. (Prerequisite: HRM 4300, MKT 4400)

MGMT 4706 Business Policy

Focuses on the selection and execution of competitive strategy. Objectives are to develop skills for evaluating the impact of internal and external forces on an organization's strategic choices, to enhance understanding of unstructured decisions, to understand the relationship between corporate cultures and competitive strategies, and to assess the nature and importance of global strategies. (Prerequisites: FIN 4200, HRM 4300, MKT 4400, OM 4600, MGMT 4700 or 4701, MGMT 4704)

MGMT 5783 Global Business Issues

An intensive course combining lectures, readings, and discussion at Clark University with overseas instruction by Clark faculty, resident business executives and guest lecturers. Current global business events are examined in the context of economic and political policy and management experience. (Prerequisites: FIN 4200, MKT 4400)

MGMT 5790 New Venture Management

Emphasizes skills needed to analyze existing markets and identify unexploited business opportunities in planning and developing a new business venture. Topics include developing business plans, identifying financing strategies, and managing start-up operations. Case studies, field consultations with small-business managers, and class presentations by entrepreneurs are used. (Prerequisites: FIN 4200, HRM 4300, MKT 4400)

MGMT 5791 New Ventures Seminar

Founders and managers of new business ventures and executives in venture capital companies discuss the creation and management of new business ventures, especially the differences between managing in new organizations and established bureaucracies. Students join the speaker and seminar leader for a continuation of the discussion over dinner. Admission to the seminar is based on academic achievement. (Prerequisites: foundation and functional courses)

MGMT 5793 Strategic Management of Technology

Focuses on the technology dimension of competitive strategies and strategy-making processes. Through cases and readings, strategic management concepts are used to analyze critical points where technology intersects other processes and functions of the business firm. The perspective is that of the nontechnically trained manager dealing with technology issues of strategic importance. (Prerequisites: FIN 4200, HRM 4300, MKT 4400, OM 4600)

MGMT 5792 Management Consulting Projects

Teams of three to four second-year MBA students work in organizations as "consultants in training." Working with guidance from Clark faculty and managers from the host organizations, the teams analyze assigned projects and recommend action. Management, in turn, critically evaluates and responds to the students' analysis and recommendations. (Prerequisites: foundation and functional courses)

Directed Research in Management

Independent research on topics in management can be taken for one course credit with a faculty sponsor's approval and approval of the assistant dean for academic affairs.

Special Topics

Occasional and special-purpose courses in management.

MATHEMATICS

Department Faculty

Lawrence E. Morris, Ph.D., *chair: automorphic representations, algebraic geometry*
Arthur Chou, Ph.D.: *differential geometry, theoretical computer science*
Frederic Green, Ph.D.: *computational complexity, theory of computation*
David Joyce, Ph.D.: *algebraic topology, combinatorics, computer science*
John F. Kennison, Ph.D.: *topology, category theory (on leave A.Y. 1998-99)*
Lee Rudolph, Ph.D.: *low-dimensional topology, complex analytic geometry (on leave fall 1998)*
Natalia Sternberg, Ph.D.: *applied mathematics, differential equations, scientific computing*

Visiting Faculty

James Derr, Ph.D.: *group theory (visiting A.Y. 1998-99)*

Part-time Faculty

Laura T. Bernhofen, Ph.D.: *mathematical statistics*

Undergraduate Programs

The department supports undergraduate majors and minors in computer science and in mathematics. The computer science program is described in the Computer Science portion of this catalog. The department also offers courses that play an important role in other disciplines.

The Mathematics Major

In keeping with liberal arts traditions, Clark's mathematics major provides a solid education in mathematical principles for students who wish to apply mathematics in other fields and students who wish to pursue mathematics in graduate school. Clark mathematics majors have gone on to graduate school in pure mathematics, applied mathematics, and computer science at such universities as Johns Hopkins, Cornell, Brown, and Oregon State. Graduates are employed in the public and private sectors as statisticians, mathematical modellers, and actuaries, as well as teachers from the elementary to university level.

The mathematics major, built around a core of fundamental courses, is best started early with calculus in the first year. Advanced electives provide some flexibility and allow students to tailor the major to their needs. Following the description of the requirements are suggestions for concentrations in pure mathematics, applied mathematics, and actuarial science.

Department faculty are eager to help students select courses. A major must be declared by the end of the sophomore year, when students should also choose an advisor from the department faculty.

Requirements

Core Courses:

These courses are prerequisites for the advanced courses and should be taken as soon as possible.

Calculus (Math 120-121 or Math 124-125), two courses
Linear Algebra (Math 130)
Multivariate Calculus (Math 131)
Introduction to Modern Analysis (Math 172)

Breadth Courses

Modern Algebra (Math 225)
Two math electives (Math 105, 114, 115, or any courses beyond Math 125)

Depth Courses

Four additional courses at the 200 level, one a capstone course to be selected with the major advisor (internships and reading courses will meet this requirement only with departmental approval)
(Total twelve courses)

Suggested Specializations in Mathematics

Pure mathematics is the study of mathematics as an end in itself. Many students are originally attracted to mathematics because of its powerful applications, but a taste for pure mathematics often develops after studying the subject. Students planning to study mathematics in graduate school should consider programs in either pure or applied mathematics. Suggested courses: Math 214 Modern Analysis; Math 216 Complex Analysis; Math 226 Modern Algebra II; and Math 228 Topology.

Applied mathematics is the study of mathematics as applied to the natural or social sciences. The heart of the field is modelling—translating aspects of natural or social phenomena into mathematical objects that can be studied with such mathematical tools as differential equations, linear systems, and stochastic processes. Suggested courses: Math 212 Numerical Analysis; Math 214, Modern Analysis; Math 216 Complex Analysis; Math 217-218 Mathematical Statistics; and Math 244 Differential Equations.

Actuarial science is the study of finance and insurance. Study in this field requires a grounding in mathematics and statistics and an understanding of economics and business management. Suggested courses: Math 212 Numerical Analysis; Math 217-218 Mathematical Statistics; Math 244 Differential Equations; and courses in economics or business management.

Honors Program

Majors in mathematics who maintain at least a 3.2 average (4.0 scale) in courses required for the major may apply for the departmental honors program. Application in writing must be received by the end of the junior year by a prospective honors advisor or by the chair of the department. Honors may be achieved in one of two ways:

1. A unified four-course sequence as a senior (some parts of which may consist of reading courses), followed by a comprehensive examination.
2. An honors thesis presented at an oral defense or at a department seminar. The thesis may be an independent or joint research project, or an analytic dissertation. Supporting course work may be required. Students register for Math 299, sec. 8 for course credit for an honors thesis.

Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors, or highest honors.

The Mathematics Minor

The mathematics minor consists of one year of calculus (Math 120-121 or Math 124-125); Math 130 Linear Algebra; Math 131 Multivariate Calculus; and two other mathematics courses, numbered beyond Math 100. (Reading courses and internships are accepted only with departmental approval.) The two elective courses depend on the student's interest. For instance, a student interested in the physical sciences could take Math 172 Introduction to Modern Analysis, and Math 244 Differential Equations, while Math 217-218 Mathematical Statistics would be more appropriate for social sciences. See the department for further suggestions.

Secondary Education Certificate in Mathematics Education

Certificate requirements include courses in education and in mathematics. The mathematics courses include Calculus (Math 120-121 or 124-125), Elementary Number Theory (Math 126), Geometry (Math 128), Statistics (Math 217-218), and 200-level mathematics courses for a total number of nine mathematics courses. See the Education Department section for required courses in education and more information.

Mathematical Services

The department offers courses to help students using mathematics as a tool for studying other areas. See IDND 17 Foundations of Quantitative Thinking; Math 113, Mathematical Problem Solving; and Math 217-218 Probability and Statistics and Topics in Statistics.

Calculus

Calculus is an essential tool for any serious student of mathematics or the natural sciences. It also is used in economics and other disciplines. The Department of Mathematics offers two calculus tracks:

Math 120-121 Calculus
Math 124-125 Honors Calculus

Students normally start calculus with Math 120 Calculus I, or Math 124 Honors Calculus I; both are open to first-year students with appropriate scores on the placement test. This is preferable to omitting calculus, even if sufficient achievement is shown on the Advanced Placement test given in high school. In exceptional circumstances, first-year students may enroll in more advanced courses such as Math 130 or Math 172. Strong students with an interest in the physical sciences are urged to start with Math 124, Honors Calculus I, which is offered in coordination with Physics 120 Introductory Physics, Part I.

Mathematics Placement Test

All first-year students who intend to take mathematics courses (with the exception of students with Advanced Placement credit in calculus) must take the mathematics placement test, given during orientation and preregistration. Students who place at levels ranging from pre-calculus through Math 124 must begin in a course corresponding to their placement test scores. This course must not be higher or lower than the test score indicates. Students may challenge their placement by taking backup placement tests. (For information about satisfying the University's mathematical and quantitative thinking requirements, See page 6.)

IDND Course

017 FOUNDATIONS OF QUANTITATIVE THINKING/LECTURE, DISCUSSION

Builds conceptual knowledge and expands basic techniques students have learned before college. Concepts are introduced according to their historical development, preserving the language and the structure of mathematics. Students improve skills in algebra through a deeper understanding of numbers, and gain speed and self-confidence by understanding corresponding algebraic concepts. Word problems insure the application of mathematical knowledge to other disciplines. The goal is to build analytical and quantitative thinking skills, providing a strong mathematical foundation. Required for students who need to satisfy the University's mathematics and quantitative thinking requirements before taking the formal analysis perspective. Recommended for students who want to strengthen their quantitative skills and gain self confidence before enrolling in a social sciences, statistics, or research methods course. Staff/Offered every Fall.

Mathematics Courses

105 HISTORY OF MATHEMATICS/LECTURE, DISCUSSION

Explores major themes—calculation, number, geometry, algebra, infinity—and their historical development in civilizations ranging from the antiquity of Babylonia and Egypt through classical Greece, the Middle and Far East, and then modern Europe. Analyzes the tension between applications of mathematics and the tendency toward formalism. Emphasizes presentations and discussions. Satisfies the historical perspective. Mr. Joyce/Offered periodically

113 MATHEMATICAL PROBLEM SOLVING/LECTURE, WORKSHOP

Intended for students who will use mathematics in such subjects as management and the social sciences, but who are not necessarily planning to go on to calculus. Math 113 cannot be used as a prerequisite for Math 120. Covers some "pre-calculus" topics (algebraic manipulations, functions and graphs, exponentials and logarithms), but major emphasis is on mathematical analysis of concrete situations (word problems, mathematical modeling, exponential growth, applications of linear systems, elementary probability). Prerequisite: A suitable score on the mathematics placement test. Mr. Kennison, Mr. Derr/Offered every Spring

114 DISCRETE MATHEMATICS/LECTURE

Covers mathematical structures that naturally arise in computer science. Includes elementary logic and set theory, equivalence relations, functions, counting arguments, asymptotic complexity, inductively defined sets, recursion, graphs and trees, Boolean algebra and combinatorial circuits, finite state automata, and diagonalization and countability arguments. Emphasizes proofs and problem solving. Prerequisite: One semester of calculus (Math 120 or 124) or CSci 101. Mr. Chou, Mr. Green, Mr. Morris/Offered every year

115 INTRODUCTION TO LOGIC/LECTURE, DISCUSSION

The propositional calculus and the first-order predicate calculus, which consist of a symbolic language and a method of proving statements made in that language, are constructed and discussed. Fulfills the formal analysis requirement. Mr. Joyce/Offered periodically

119 PRE-CALCULUS MATHEMATICS/LECTURE, DISCUSSION

Intended for students who plan to go on to calculus (Math 120-121). Students should have a solid grasp of elementary algebra. Covers more advanced algebraic techniques (linear and nonlinear inequalities, quadratic equations, linear systems) and gives a rigorous look at elementary functions (polynomial, exponential, logarithmic, trigonometric). Prerequisite: A suitable score on the mathematics placement test. Mr. Kennison, Mr. Derr/Offered every Spring

120 AND 121 CALCULUS I AND II/LECTURE, DISCUSSION

Part I includes functions, sequences and limits, continuity, differentiation of algebraic and trigonometric functions, mean value theorem, L'Hopital's rule, and various applications. Part II includes motivation for, and definition of, Riemann sums and integrals; techniques and application of integration; improper integrals; transcendental functions (logarithms, exponential functions, and inverse trigonometric functions); series and Taylor series. Though not all results are derived rigorously, care is taken to distinguish intuitive arguments from rigorous proofs. Calculus is essential for majors in biology, chemistry, computer science, mathematics, physics, and Environmental Science and Policy. Three lectures and one recitation (mandatory attendance) per week. Math 120 and 121 fulfill the formal analysis requirement. Prerequisite: Appropriate score on the mathematics placement test, or appropriate grade in Math 119. Corequisite: Students who have placed into Math 120, but whose placement tests indicate need for further work in one or more pre-calculus subjects, are required to enroll in a supplementary Co-calculus Workshop during the first part of the fall semester. Topics include manipulation of algebraic expressions, trigonometry, functions and graphs, exponentials, and logarithms. Students enrolled in this workshop must pass it to earn a passing grade in Math 120. One lecture per week for half a semester, plus workshops. Mr. Joyce, Mr. Morris, staff/Offered every fall (120) and spring (121)

124 AND 125 HONORS CALCULUS I AND II/LECTURE

Two-course sequence for majors in mathematics, physics, and other physical sciences. Offered in coordination with the Department of Physics. Ordinarily, students take Math 124 simultaneously with Physics 120 Introductory Physics, Part I, and Math 125 simultaneously with Physics 121 Introductory Physics, Part II; with the instructors' permission, students may enroll in Math 124/125 without Physics 120/121. Previous experience with calculus is helpful but not required. Mathematical rigor and physical intuition are both emphasized. In addition to the subject matter of Math 120/121, this course introduces topics such as Riemann-Stieltjes integration, elementary differential equations, theory of plane curves, calculus of variations, and Fourier analysis. Fulfills the formal analysis requirement. Prerequisite: An appropriate score on the mathematics placement test. Corequisite: Physics 120/121 (see above) or permission. Mr. Morris, Mr. Rudolph/Offered every year

126 ELEMENTARY NUMBER THEORY/LECTURE

Introduces number theory and trains students to understand mathematical reasoning and to write proofs. Includes the unique factorization of integers as products of primes, the Euclidean algorithm, Diophantine equations, congruences, Fermat's theorem, and Euler's theorem (and some applications: calendar problems, magic squares, cryptology). Prerequisite: Math 114, or one semester of Calculus (Math 120 or 124), or permission. Mr. Morris/Offered periodically

128 GEOMETRY/LECTURE

Recalls Euclidean geometry and then proceeds to modern related topics: Hilbert's axioms; hyperbolic (Lobachevskian), elliptic, and projective geometries, and philosophical implications of geometries without the Parallel Postulate; finite geometries; automorphism groups (Klein's Erlanger Programme). One aim is to show the beauty of deduction in mathematics. Prerequisites: high school geometry, and either a semester of college mathematics or permission. Mr. Joyce, Mr. Rudolph/Offered periodically

130 LINEAR ALGEBRA/LECTURE, DISCUSSION

A prerequisite for Math 131 Multivariate Calculus and a requirement for all mathematics majors. Topics include systems of linear transformations, minimum and characteristic polynomials, eigenvectors and eigenvalues, and determinants and bilinear forms. Prerequisite: Math 121 or 125. Mr. Rudolph, Ms. Sternberg/Offered every fall

131 MULTIVARIATE CALCULUS/LECTURE, DISCUSSION

Differential and integral calculus in several variables. Line and surface integration, Stokes' Theorem. Prerequisites: Math 121 or 125, and Math 130. Mr. Rudolph, Ms. Sternberg/Offered every spring

172 INTRODUCTION TO MODERN ANALYSIS/LECTURE

Modern analysis provides a language and unifying framework for theories encountered throughout mathematics. In this course, students learn to understand, formulate, and prove mathematical statements. Ideas first encountered in calculus—convergence, completeness, and integration—are studied in depth. Other topics include metric spaces, normed spaces, compactness, and measure theory (Lebesgue integration). Required for mathematics majors by the junior year, and earlier if possible. Corequisite: Math 130. Mr. Chou, Ms.Sternberg/Offered every year

181 MATHEMATICAL THEORY OF COMPUTATION

See Computer Science 270. Mr. Chou, Mr. Green/Offered every other year

201 PROSEMINAR IN MATHEMATICS/SEMINAR

Senior undergraduates study and speak on topics in mathematics to become acquainted with diverse subjects, learn to research known topics, and get practice in presenting presenting mathematics to peers. Faculty present their research areas. Possible topics include: category theory, knot theory, automorphic forms, topos theory, low-dimensional topology, class field theory, group representation theory, and dynamical systems. This is a capstone course in mathematics. Staff/Offered periodically

212 NUMERICAL ANALYSIS/LECTURE, LABORATORY

Introduces concepts and techniques of scientific computing to students in mathematics, computer science, and the sciences. Teaches how to set up reasonable computational algorithms and use the algorithms to work on actual projects. Topics include approximation theory, error analysis, numerical differentiation and integration, and solution of ordinary differential equations and linear systems. Prerequisites: Math 130 and Math 172. Mr. Chou, Ms. Sternberg/Offered every other year

214 MODERN ANALYSIS/LECTURE

Ideas introduced in Math 172 are developed and applied to scientific models. Topics include Hilbert spaces, Lp spaces, Fourier series, Weierstrass approximation theorems, and linear operators. Prerequisites: Math 130 and Math 172. Mr. Chou, Ms. Sternberg/Offered every other year

216 FUNCTIONS OF A COMPLEX VARIABLE/LECTURE

Designed for undergraduate science and mathematics majors. Includes Cauchy's theorem, power series, Laurent series, the residue theorem, harmonic functions, and physical applications, such as problems in two-dimensional flow. An introduction to Riemann surfaces if time permits. Prerequisite: Math 131 and Math 172. Mr. Rudolph/Offered every other year

217 PROBABILITY AND STATISTICS/LECTURE

Introduces fundamentals of probability and mathematical statistics using calculus. Topics include probability axioms, counting methods, independence, conditional probability, random variables, probability distributions, expectation, estimation, and sampling distributions. Prerequisite: Math 131. Ms. Bernhofen/Offered every year

218 TOPICS IN STATISTICS/LECTURE

Explores common statistical applications. May cover hypothesis testing, analysis of variance, linear models, time series, nonparametric statistics, and Bayesian statistics, depending on student interest. Prerequisite: Math 217 or Econ 260. Ms. Bernhofen/Offered periodically

225 MODERN ALGEBRA I/LECTURE

In the 19th century, Kummer introduced "ideal numbers" to salvage unique factorization of integers into primes (which breaks down in some rings of algebraic integers). This course discusses unique factorization and the modern theory of rings and their ideals, emphasizing Euclidean domains. Other algebraic structures (groups, fields) also are introduced. Required for all mathematics majors. Prerequisite: Math 130. Mr. Kennison, Mr. Morris/Offered every year

226 MODERN ALGEBRA II/LECTURE

In the early 1800s, Abel showed that a general equation of degree at least 5 cannot be solved by extracting roots. Today, group theory, developed by Galois to determine which equations are solvable, is used throughout mathematics, and in much of physics and chemistry. This course focuses on groups and Galois theory. Other possible topics include canonical forms of matrices and modules. Prerequisite: Math 225. Mr. Kennison, Mr. Morris/Offered every other year

228 TOPOLOGY/LECTURE

Homology theory is the proper context for Stokes' theorem (Math 131). This course continues the study (begun in Math 131 and Math 172) of the topological properties of subsets of Euclidean space, developing algebraic tools like homology and fundamental groups. Further topics may include fixed-point theory, the Jordan curve theorem, and knot theory. Prerequisites: Math 131 and Math 172. Mr. Rudolph, Mr. Joyce/Offered every other year

244 DIFFERENTIAL EQUATIONS/LECTURE

Most ordinary differential equations occurring in mathematical models of physical, chemical, and biological phenomena cannot be solved analytically. Numerical integrations do not lead to a desired result without qualitative analysis of the behavior of the equation's solutions. This course studies the flows of scalar and planar ordinary differential equations. Stability and bifurcation are discussed. Prerequisite: Math 130 and Math 172.

Ms. Sternberg/Offered every other year

Computer Science

Courses in computer science are listed in the Computer Science section.

PHILOSOPHY

Program Faculty

Walter Wright, Ph.D., chair: *19th-century philosophy, ethics, philosophy of religion, metaphysics, German idealism*
Judith DeCew, Ph.D.: *theoretical and applied ethics, philosophy of law, social and political philosophy, logic*
Patrick Derr, Ph.D.: *philosophy of science, biomedical ethics, history of modern European philosophy, ethical issues in hazards management*
Gary Overvold, Ph.D.: *contemporary continental philosophy, interdisciplinary studies, epistemology, cultural history, modernism*
Michael Pakaluk, Ph.D.: *ancient philosophy, analytic philosophy, Hume, philosophy of psychology, philosophy of love and friendship, logic*
Christina Sommers, Ph.D.: *history of ethics, feminist philosophy, contemporary moral theory, philosophy of literature (on leave 1998-99)*

Part-time Faculty

Barbara Carlson, C.Phil.
Sydney Thomas, Ph.D.

Undergraduate Program

The Philosophy Department offers an undergraduate major program in philosophy, a concentration in ethics and public policy, a minor in philosophy, and a variety of elective courses which non-majors may take to broaden their education and fulfill Program of Liberal Studies requirements.

The Philosophy Major

The requirements for a major in philosophy are designed to ensure exposure to the major systematic fields in philosophy, to ensure familiarity with advanced analytic and logical methods, to acquaint the student with the history of the discipline, and to provide close faculty-student contacts through advanced seminars and individual research projects. The major program accommodates both general Liberal Arts students as well as double majors, and those students pursuing honors work as well as those considering graduate study in Philosophy. Students, especially those considering graduate school, who wish a more intensive course of study toward the major should consult with department faculty and study the philosophy major handbook in the department office.

Major requirements

1. Required courses in philosophy
   - One course in formal logic (110 or 160)
   - Two courses in the history of philosophy (141, 143, or 145)
   - One advanced course in the area of metaphysics (234 or 235)
   - One advanced course in the area of epistemology (240 or 241)
   - One advanced course in the area of ethics and social philosophy (220, 221, or 228)
   - One advanced elective, chosen to complement the student's second major or intended professional field
   - A designated Capstone Seminar
2. Required courses outside philosophy
   - Either: (i) a completed double major; or (ii) a completed concentration (for example, Environmental Science and Policy, Ethics & Public Policy, Womens Studies, Classics, Ancient Civilizations, Judaic Studies, or Communications); or (iii) a completed minor in any other program or department.

The Philosophy Minor

Students pursuing a minor in philosophy at Clark can choose one of two tracks. Each track requires six courses in philosophy, and each is designed to develop students' intellectual skills and to familiarize them with the fundamental methods of philosophical inquiry. Each track begins with a foundation in logic and practical ethics.

The traditional Great Issues minor track emphasizes a grounding in the history of philosophy. This track engages the student in the fundamental philosophical questions with which human beings have been perennially concerned: for example, Does God exist? How ought I to live? What is knowledge? Do human beings have free will? Can political authority be legitimated? Is there life after death?

The optional Enriched Major track emphasizes advanced work in courses related to students' majors. This track engages students in the fundamental philosophical questions which their own major fields raise but do not answer: for example, What is a mind? What is a person? What is the nature of a profession? What is science? What is justice?

Requirements for the Great Issues Minor Track

- One course in logic (103 or 110)
- One course in practical ethics (105, 130, 132, 133, or 139)
- Three courses in the history of philosophy (141, 142, 143, 145, 148, or 215)
- One advanced elective course (200+)

Requirement for the Optional Enriched Major Track

- One course in logic (103 or 110)
- One course in practical ethics (105, 130, 132, 133, or 139)
- One course in the history of philosophy (141, 142, 143, 145, 148, or 215)
- One elective course, chosen at any level
- Two advanced courses (200+) chosen to complement the student's major or preprofessional program.

Directed Readings, Individual Research, Tutorials

For significant independent research, the department offers individual Directed Research (PHIL 299.2) and Directed Readings (PHIL 299.1) courses, and Advanced Topics in Philosophy courses (PHIL 297). Students interested in these possibilities should consult with individual members of the philosophy faculty.

Internships, Research Apprenticeships

Students are encouraged to apply for a research apprenticeship with an individual philosophy professor. Research apprentices work closely with their mentor on the mentor's scholarly research, sometimes co-authoring a published article. Some recent topics have been: ethical issues in reproductive technology; privacy in law and ethics; and statistical stylometry and ancient philosophy. Philosophy faculty also sponsor off-campus undergraduate internship experiences. Students interested in these opportunities may inquire at the department or through the internship office.

Senior Thesis

Undergraduate majors are encouraged to complete a senior thesis (PHIL 299.8); majors intending graduate study especially should consider this. Thesis students engage in advanced individual research on a selected philosophical problem, guided by a faculty advisor and a thesis committee composed of three faculty members. See Phil 299.8 for more information.

Honors

Honors, high honors, or highest honors in philosophy may be conferred at graduation upon majors who, in addition to having compiled a suitable record in the major, successfully defend their senior thesis in an oral presentation to their thesis committee. To be considered for Honors, a student must have at least a 3.0 overall g.p.a. combined with a higher g.p.a. in philosophy. Students who complete a thesis but do not have an adequate g.p.a., or who otherwise don't meet honors requirements, will simply receive a grade (without an honors designation) for their senior thesis.

Department Prizes and Awards, and Student and Honor Societies

Each year, the department inducts its best junior and senior philosophy majors into Phi Sigma Tau, the national philosophy honor society. At the Spring honors convocation, the department awards one or more prizes to exemplary graduating seniors. At the Fall convocation, the department confers a prize for the best work in logic by a first- or second-year student.

The Philosophy Club, a student organization, sponsors lectures, colloquia and informal educational and social activities for all interested Clark students.

Professional Organizations

The Clark University Department of Philosophy houses the New England Chapter of the Society for Philosophy and Public Affairs, a national organization that works to promote the application of philosophical methods and insights to issues of public policy. The society sponsors colloquia, symposia, and conferences. Inquiries concerning its activities may be directed to the department.

The Department is a founding member of the Boston Area Colloquium in Ancient Philosophy. The organization sponsors lectures and seminars at the various member college campuses.

Departmental Publications

The international philosophical journal, Idealistic Studies, is edited by Walter Wright. Founded by Robert N. Beck, Idealistic Studies is a leading interdisciplinary journal focusing on issues of contemporary philosophy of science and idealism.

Courses

102 INTRODUCTION TO PHILOSOPHY/ LECTURE, DISCUSSION

Introductory study of typical problems drawn from philosophy's main branches. Topics often include God's existence, the nature of morality, skepticism, freedom vs. determinism, immortality, and political theory. Readings are taken from both classic and contemporary sources. Mr. Overvold, Mr. Derr, Mr. Pakaluk/Offered every semester

103 ANALYTIC REASONING/LECTURE, DISCUSSION

Analysis of argumentative essays (drawn from newspapers, philosophical works, legal journals, and popular magazines) on such topics as affirmative action, the problem of evil, the nature of law, scientific method, etc. Students read, write, and think in a more analytical and critical manner. Ms. Carlson/Offered every semester

105 PERSONAL VALUES/LECTURE, DISCUSSION

A philosophical study of some fundamental human concerns. Students learn some important moral theories and methods used to reason philosophically about moral questions. Ms. Thomas, Ms. DeCew, Ms. Sommers, Mr. Wright/ Offered every semester

110 INTRODUCTION TO LOGIC/ LECTURE, DISCUSSION

Introduces logic as both a practical skill and a branch of philosophy. The student is introduced to the methods of logical reasoning, with special attention to symbolic technique. Mr. Pakaluk, Ms. Carlson/Offered every semester

130 MEDICAL ETHICS/LECTURE, DISCUSSION

Investigates contemporary issues in medical ethics: informed consent, definitions of death, treatment termination and euthanasia, abortion, confidentiality and truth telling, genetic screening and counseling, research on human subjects, resource allocation, reproductive technologies, conflicts of interest, and national health policy. Not open to first-year students. Mr. Derr/Offered every semester

131 ENVIRONMENTAL ETHICS

See ES131. Mr. Derr/Offered every year

132 SOCIAL AND POLITICAL ETHICS/LECTURE, DISCUSSION

Topics in social and political theory, such as equality, liberty, and justifications for political authority, as well as issues such as: What is affirmative action, and can it be morally justified? Should governments censor pornography? Is capital punishment acceptable? Can war be justified? Should morality be legislated? Ms. DeCew, Ms. Thomas/Offered every semester

133 BUSINESS ETHICS/LECTURE, DISCUSSION

Investigates moral problems in and about the world of business: Do corporations have moral responsibilities, or is their only social responsibility to increase profits? Is capitalism morally justifiable, or is some other politico-economic system morally preferable? Discusses ethical issues in advertising, affirmative action, and business's responsibilities toward the environment. Mr. Ottensmeyer, Ms. Sommers/Offered every year

135 MORAL PROBLEMS IN THE PROFESSIONS/LECTURE, DISCUSSION

This course examines moral issues and dilemmas typically found in the professions, that is, in law, medicine, advertising, therapy, business, education, etc. Among the issues considered are privacy and confidentiality, truthfulness and deception, individual responsibility, social justice, "professionalism," and generally, the dilemmas created by conflicts between professional or role morality and personal or ordinary morality. Mr. Overvold

139 EXISTENTIALISM IN PHILOSOPHY, LITERATURE, AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Explores central existential themes—such as the meaning of life, freedom and responsibility, the role of the irrational in human thought, action and expression, and the death of God in their historical, cultural, and thematic context. Existentialism is treated both as a postwar cultural event and as a view of life's meaning and possibilities. Mr. Overvold/Offered each semester

141 HISTORY OF ANCIENT GREEK PHILOSOPHY/ LECTURE, DISCUSSION

Examines the origins of Western thought in early Greek philosophy. Readings include the fragments of the Pre-Socratic philosophers; the Apology, Phaedo, Gorgias, and Republic of Plato; and selections from Aristotle. Mr. Pakaluk/Offered every year

142 HISTORY OF MEDIEVAL PHILOSOPHY/ LECTURE, DISCUSSION

Surveys medieval philosophy with special attention to some of the philosophical texts that were pivotal to the later development of Western philosophy and culture. These include Augustine's Confessions, Boethius' Consolation of Philosophy and Aquinas' Summa Theologica. Mr. Pakaluk/Offered periodically

143 HISTORY OF MODERN EUROPEAN PHILOSOPHY/LECTURE, DISCUSSION

The two great movements in modern Western thought—Continental rationalism and British empiricism—are examined from their common origin in Descartes, through their later articulations by Hobbes, Locke, Berkeley, Leibniz, and Hume, to their eventual transformation by Immanuel Kant. Emphasis is on the interaction of philosophy and science and on the powerful influence exerted by the modern European thinkers upon contemporary thought. Mr. Derr/Offered every year

145 HISTORY OF CONTEMPORARY PHILOSOPHY/LECTURE, DISCUSSION

Surveys the major trends in recent Anglo-American and Continental philosophy: pragmatism, logical positivism, ordinary language philosophy, hermeneutics, critical theory, and phenomenology. Each alternative is considered as a coherent perspective on experience, with special attention given to its style and methodology. Prerequisite: Philosophy 143 or permission of the instructor. Mr. Overvold/Offered every year

148 HISTORY OF AMERICAN PHILOSOPHY/LECTURE, DISCUSSION

Concentrates on the founders of the first indigenous American philosophical movement, pragmatism—Pierce, James, and Dewey—and explores their influence on later pragmatists—Lewis, Quine, and Rorty. Prerequisite: one course in philosophy. Ms. Thomas/Offered periodically

150 PHILOSOPHY OF RELIGION/LECTURE, DISCUSSION

Studies religion as a form of worldview and a perennial dimension of human experience. Prerequisite: one course in philosophy. Mr. Wright/Offered every year

154 RECENT EUROPEAN PHILOSOPHY/LECTURE, DISCUSSION

Introduces four contemporary European philosophical movements: hermeneutics, deconstructionism, critical theory, and structuralism. Prerequisite: one course in philosophy or permission of instructor. Mr. Overvold/Offered periodically

167 MYTH, RELIGION, AND ART/LECTURE, DISCUSSION

Among living beings, only humans appear to think symbolically. Our myths, religious beliefs, and art works symbolize our deepest fears and our most profound aspirations. This course explores the function of symbols in religious, mythic, and artistic expression, and looks for levels and meaning and insight common to all three. The views of Langer and Campbell receive special attention. Ms. Thomas/Offered every other year

169 AESTHETICS/LECTURE, DISCUSSION

Why did Plato condemn poets and their work? Can art be neatly defined? Is art "imitation," "emotion," "relations of forms" or is it indefinable? Are there standards of beauty? Among the theories we consider are those of Aristotle, Tolstoy, Collingwood, Danto, Dickie, and Kant. Prerequisite: one course in philosophy. Ms. Thomas/Offered every other year

203 SURSEMINAR: TEACHING PHILOSOPHY/SEMINAR

Registration is limited to students working as discussion group leaders in Philosophy 102, 105, 110, 130, 131 or 132. Mr. Derr, Ms. DeCew, Mr. Pakaluk, Ms. Thomas, Ms. Sommers, Mr. Wright/Offered every semester

210 MODERNISM IN PHILOSOPHY, LITERATURE, AND THE ARTS/LECTURE, DISCUSSION

Between 1890 and 1930, the forms of inquiry and artistic expression in Western culture went through radical, foundational transformation. Using representative texts from the humanities and the arts, this course examines the Modernist Transformation in its historical, cultural, and thematic context, using a multidisciplinary perspective to integrate topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas. Mr. Overvold/Offered periodically

212 PHILOSOPHY AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Using texts from both the humanities and the social sciences, the course examines central philosophical themes in the human sciences—rationality; action, choice, and character; human nature; the other; self and society; explanation and human action—in their historical, cultural, and thematic context, integrating topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas. Mr. Overvold/Offered periodically

213 THE IDEAL OF THE EDUCATED PERSON/SEMINAR

This course presents the models of humanity which have been dominant in Western Culture. It encourages us to understand, reflect upon, and discuss the competing ideals which influence the formation of educational goals, determine the purpose of public policy, and shape our reflections on self-understanding. Mr. Overvold/Offered periodically

215 KANT AND THE 19TH CENTURY/LECTURE, DISCUSSION

Examines the work of Kant and selected later philosophers (Fichte, Hegel, Schopenhauer, Nietzsche, Marx, Engels, and Comte) with emphasis on their influence on contemporary thought. Prerequisite: two courses in philosophy, including Philosophy 143. Mr. Wright/Offered every other year

216 CRITICAL RATIONALISM/SEMINAR

Focuses on the theories of knowledge, rationality, and science advanced by such contemporary thinkers as Kuhn, Popper, Feyerabend, Laudan, Lakatos, and Zahar. Mr. Derr/Offered periodically

219 FEMINIST THEORY/LECTURE, DISCUSSION

Investigates selected topics in recent feminist philosophical literature. Topics and authors vary each year. Attention is given to the many different perspectives included in contemporary feminist theory. Prerequisite: two courses in philosophy or permission of the instructor. Ms. Sommers/Offered periodically

220 THEORIES OF ETHICS/LECTURE, DISCUSSION

Examines the principal ethical theories from the history of Western philosophy, including such philosophers as Plato, Aristotle, Epicurus, Aquinas, Hobbes, Hume, Kant, Mill, Ross, and Rawls. Topics include: What is "the Good"? Are there fundamental standards of right conduct? Are moral judgments objective? Why should we be moral? Prerequisite: two courses in philosophy. Ms. DeCew, Ms. Sommers/Offered every year

221 SOCIAL AND POLITICAL PHILOSOPHY/LECTURE, DISCUSSION

Surveys the leading philosophical accounts of social and political institutions. Property, civil and natural rights, freedom and obligations, and the legitimation of political authority are treated in detail. Readings include both classical and contemporary sources. Prerequisite: two courses in philosophy. Ms. DeCew/Offered every other year

228 CONTEMPORARY MORAL THEORY/LECTURE, DISCUSSION

Surveys recent work in moral theory (including both metaethical and normative issues) by leading Anglo-American philosophers. Prerequisite: two courses in philosophy. Ms. DeCew, Mr. Pakaluk, Ms. Sommers/Offered every other year

234 METAPHYSICS/LECTURE, DISCUSSION

An advanced study of fundamental problems in metaphysics: universals, substance, the mind/body relation, category theory, identity and individuation, free will, and the nature of space and time. Prerequisite: two courses in philosophy. Mr. Pakaluk, Mr. Wright/Offered every year

235 SELF AND NATURE/LECTURE, DISCUSSION

Considers various conceptions of the self in relation to nature developed by classical and contemporary thinkers, with emphasis on the interconnectedness of these terms. Prerequisite: two courses in philosophy. Mr. Wright/Offered every year

240 EPISTEMOLOGY/LECTURE, DISCUSSION

Studies the nature, concept, and sources of knowledge, with special attention to the interrelationships among belief, knowledge, evidence, proof, truth, and the problem of relativism, skepticism, and foundationalism. Prerequisite: two courses in philosophy. Mr. Overvold/Offered every year

241 PHILOSOPHY OF SCIENCE/LECTURE, DISCUSSION

Examines such questions as: What is a scientific explanation? Can induction be justified? What could justify the claim that one theory is better than another? Are there such things as objective "facts"? Do scientific theories disclose the ultimate constituents of the universe? What is the difference between science and pseudo-science? Prerequisite: four courses in natural sciences or two courses in philosophy. Mr. Derr/Offered every other year

242 PHILOSOPHY OF LANGUAGE/LECTURE, DISCUSSION

Analyzes the concepts of reference, meaning, analyticity, intentionality, intensionality, rules, and the relation of language to thought. Particular attention is given to speech act theory (Austin, Grice, Strawson, Searle) and to the implications of language theory for the social sciences (Ricoeur, Louch). Prerequisite: two courses in philosophy. Mr. Pakaluk/Offered periodically

250 PLATO/SEMINAR

An advanced study of the philosophical thought of Plato. The seminar involves careful reading and discussion of one of the major dialogues, such as the Parmenides, Sophist, or Theaetetus. Prerequisite: Philosophy 141. Mr. Pakaluk/Offered every other year

251 ARISTOTLE/SEMINAR

An advanced study of the philosophical thought of Aristotle. The seminar involves careful reading and discussion of one of the major works, such as the De Anima, Physics, Metaphysics, and Nicomachean Ethics. Prerequisite: Philosophy 141. Mr. Pakaluk/Offered every other year

256 KANT/SEMINAR

A study of Kant's "Critique of Pure Reason"—regarded by many as the most important philosophical text of the last several hundred years. Prerequisite: two courses in philosophy, including 143. Mr. Wright/Offered periodically

257 HEGEL/SEMINAR

Hegel's "The Phenomenology Mind" and selections from his other works are covered. Prerequisite: two courses in philosophy, including 143. Mr. Wright/Offered periodically

258 THE ORIGINS OF ANALYTIC PHILOSOPHY/SEMINAR

Examines the development of analytic philosophy through an intensive study of its three founding figures: Gottlob Frege, Bertrand Russell, and Ludwig Wittgenstein. Readings include Frege's Foundations of Arithmetic, Russell's Mysticism and Logic, and Wittgenstein's Tractatus Logico-Philosophicus. Prerequisite: two courses in philosophy, including 110 or 160. Mr. Pakaluk/Offered periodically

260 KIERKEGAARD AND NIETZSCHE/SEMINAR

Studies Kierkegaard and Nietzsche as seminal figures in 19th-century intellectual life and as sources of later 20th-century philosophical developments. Particular attention is given to their views of human existence and of truth. Prerequisite: two courses in philosophy. Mr. Overvold/Offered periodically

263 PHILOSOPHY OF MIND/SEMINAR

A critical examination of the "nature" or concept of mind. Related issues considered are: mind/body relationship, the identity theory of mind/brain, the thesis of dualism, and other themes that involve the philosophical examination of psychological phenomena. Prerequisite: two courses in philosophy. Mr. Pakaluk/Offered every other year

265 IDEALISM/SEMINAR

Detailed and advanced study of the major idealistic philosophers. Course topics and texts will vary from year to year. Mr. Wright/Offered every other year

270 PHILOSOPHY OF LAW/SEMINAR

Examines fundamental questions in philosophy of law, such as: What is the source and purpose of law? What is the nature of judicial reasoning, and is it subjective or governed by some set of principles? How do alternative theories of law explain rights, duties, liability, responsibility, and so forth? What is the relationship between liberty, privacy, and justice? Prerequisite: two courses in philosophy. Ms. DeCew/Offered every year

272 ADVANCED ISSUES IN MEDICAL ETHICS/SEMINAR

A rigorous investigation of two or three current controversies related to medicine, health policy, and ethics. Readings include original materials from legal, medical, and philosophical literature. Topics have included: surrogate motherhood, AIDS, xenogestation, and assisted suicide. Prerequisite: permission of the instructor. Mr. Derr/Offered periodically

275 PHENOMENOLOGY AND HERMENEUTICS/SEMINAR

Traces the development of two major 20th-century movements in continental philosophy. Edmund Husserl and Maurice Merleau-Ponty are focussed on in Phenomenology: Hans Georg Gadamer in Hermeneutics. In both, collateral reading will present the historical context and development of each movement. Prerequisite: at least three courses in philosophy. Mr. Overvold/Offered periodically

276 HEIDEGGER AND EARLY 20TH-CENTURY PHILOSOPHY/SEMINAR

Concentrates on developments in 19th- and 20th-Century Continental philosophy, which influenced the main text of this seminar, Heidegger's Being and Time. Attention also will be given to the broader cultural context and to parallel changes in American and British philosophy during the early 20th century. Prerequisite: at least three courses in philosophy. Mr. Overvold/Offered periodically

287 PHILOSOPHY OF THE SOCIAL SCIENCES/SEMINAR

A critical and intensive survey of the four alternative accounts of explanation, social reality, and social science put forward by the neopositivist empiricists, the phenomenologists, the neo-Wittgensteinians, and the Continental hermeneuticists and critical theorists. Prerequisite: at least four courses in philosophy or graduate status in a social science. Mr. Overvold/Offered periodically

299 SEC. 1 DIRECTED READINGS/INDIVIDUAL PROJECTS

299 SEC. 2 DIRECTED RESEARCH/INDIVIDUAL PROJECTS

See description and prerequisites under Major Requirements above.

299 SEC. 5 RESEARCH APPRENTICESHIP/ INDIVIDUAL PROJECTS

A research apprentice participates in the current professional research of her or his faculty sponsor. Students accepted as apprentices need initiative, perseverance, and superior research and writing skills. Prerequisite: at least four courses in philosophy, permission of the instructor, and approval of the department. Ms. DeCew, Mr. Derr, Mr. Overvold, Mr. Pakaluk, Ms. Sommers, Mr. Wright/Offered every semester

299 SEC. 7 ADVANCED TOPICS IN PHILOSOPHY/ INDIVIDUAL PROJECTS

Individual tutorials and supervised research on philosophical topics selected by the student and faculty sponsor. Prerequisite: at least four courses in philosophy and permission of instructor. Ms. DeCew, Mr. Derr, Mr. Overvold, Mr. Pakaluk, Ms. Sommers, Ms. Thomas, Mr. Wright/Offered every semester

299 SEC. 8 SENIOR THESIS/INDIVIDUAL PROJECTS

The prerequisites, which should be completed by the end of the student's junior year, are: (1) at least six courses in philosophy; and (2) submission and approval of a thesis proposal. The thesis proposal must describe the nature and scope of the proposed project, provide a bibliography of the principal sources the student expects to use, include a schedule for submission of first and final drafts to the advisor and the committee, and be signed by the student's thesis advisor. Upon completion of the thesis, the department faculty schedules an oral defense for the student. For regulations on "Honors," see earlier entry. Offered for one or two credits over one or two semesters. Ms. DeCew, Mr. Derr, Mr. Overvold, Mr. Pakaluk, Ms. Sommers

PHYSICS

Department Faculty

S. Leslie Blatt, Ph.D., *chair: experimental nuclear physics, physics education*
Charles Agosta, Ph.D.: *experimental condensed matter physics, director of 3/2 engineering program*
John Davies, Ph.D.: *theoretical plasma physics*
Stanley Geschwind, Ph.D.: *experimental condensed matter physics*
Harvey Gould, Ph.D.: *theoretical condensed matter physics, computer simulation*
Christoph Hohenemser, Ph.D.: *technology assessment*
Arshad Kudrolli, Ph.D.: *experimental condensed matter physics*
Christopher P. Landee, Ph.D.: *experimental condensed matter physics, magneto-chemistry*

Adjunct Faculty

Daeg S. Brenner, Ph.D., *chemistry*
Rafael Bruschweiler, Ph.D., *chemistry*
Robert L. Goble, Ph.D., *Environmental Science and Policy: technology assessment, atmospheric physics and turbulence*
Alan A. Jones, Ph.D., *chemistry*

Affiliate Faculty

George Phillies, Ph.D., *Worcester Polytechnic Institute*

Emeritus

Roy S. Andersen, Ph.D.: *history and philosophy of science*
Roger P. Kohin, Ph.D.: *experimental condensed matter physics*

Undergraduate Program

Physics is the most fundamental of the sciences and is an important part of a liberal arts education. Introductory courses are designed for students in all majors and provide a fundamental background in physical principles, the observation of natural processes, the logic and nature of science, and the diverse applications of physics. The introductory courses are:

1. **Scientific Perspective Courses.** Physics 10, 20, Astronomy 001, and 002 have no prerequisites and satisfy the scientific perspective requirement of the Program of Liberal Studies. Physics 111, 121, 125, 130, and 131, which also satisfy the scientific perspective requirement, are primarily for science majors.
2. **Introductory Sequences.** Prospective science majors are urged to begin their study of physics during their first or second years. The department offers two sequences of introductory courses. Physics 110/111 is a two-semester, non-calculus-based survey of physics appropriate for the majority of science majors, including environmental science and policy majors and premedical/predental students. Physics 120/121/130 is a three-semester sequence recommended for physics, chemistry, and mathematics majors, and covers mechanics, electricity and magnetism, waves, and quantum physics in more depth than the 110/111. Because Physics 121 discusses the subject matter more deeply, it is less comprehensive than Physics 111, and should be followed by Physics 130.
3. **Laboratory Courses.** Physics 111, 121, 125, 130, 131, and 219 offer laboratory experience. Physics 111 fulfills the physics laboratory requirement for premedical/predental students.

Major requirements

A major in physics can be structured to meet the interests of individual students, including graduate study in physics, related sciences, engineering, careers in environmental studies, management, government, law, medicine, and teaching. During their first year, prospective physics majors are urged to enroll in Physics 120 and 121 and to consult the undergraduate physics advisor about their program of study. Physics major requirements consist of fourteen common core courses and four additional approved courses in physics or related areas. The requirements are flexible and, through consultation with the undergraduate physics advisor, may be modified to satisfy the particular needs and interests of each student. Examples of individual programs are:

General Physics – for students who wish to major in physics as part of liberal arts education, including preparation for careers in teaching or business.

Preprofessional Physics – courses in physics, chemistry, and mathematics to prepare students for graduate study in physics or research in industry.

Biological Physics – includes chemistry and biology courses that can be used to prepare for medical or dental schools or for careers in the biomedical professions.

Materials Science – advanced courses in physics and chemistry designed to prepare students for graduate study in the interdisciplinary area of materials science.

Computational Physics – advanced courses in physics, computer science, and mathematics designed to prepare students for graduate study in the rapidly growing area of computational science.

Technology Assessment – interdisciplinary courses to enable students to make physical, economic, and value assessments of technological systems.

Students interested in using physics as the basis for an engineering career should inquire about the 3/2 Engineering Program offering students a five-year option that combines a B.A. from Clark and a B.S. in engineering from Columbia University, Washington University (St. Louis), or Worcester Polytechnic Institute.

Courses in the core curriculum include:

	Units
1. **Introductory Physics:** Physics 120 and Physics 121 (or 110/111)	2
2. **Intermediate level Physics:** Physics 130 and 131	2

3. **Calculus:**
   Mathematics 124, 125, 130, and 131 4
4. **Laboratory-based courses:**
   Physics 125 or 219 1
5. **Upper-level courses:**
   Physics 150, 160, 161, and 171 4
6. **Senior project:**
   Physics 299 or equivalent 1

Total In Core Curriculum 14
Additional approved electives 4

Total In Major Program 18

Students with strong backgrounds in physics and mathematics may replace required courses with appropriate advanced courses with advisor approval. Advanced placement credits may count toward major requirements. Advanced undergraduates may take graduate level courses. Majors must meet with the undergraduate physics advisor prior to registration every semester to plan their course of study and to ensure that all requirements for the major are being satisfied. It is possible to complete all requirements for the major within three years, so that it is not essential to begin the study of physics in the first year.

Information about career opportunities and further information about courses and major requirements can be obtained from the undergraduate physics advisor and other physics faculty members.

The Capstone Experience

An independent research project is the appropriate capstone experience for most physics majors. Students are encouraged to "do physics" at the earliest opportunity. Majors must take a capstone course satisfied by one semester of Physics 299, Special Projects in Physics, or an approved course of comparable scope. Near the end of the junior year (or earlier) a physics major should choose a topic for his or her senior project with department faculty. Work is conducted under the guidance of a faculty member, often with the assistance of graduate students. The faculty seeks to design projects that lead to publication in refereed physics journals. Majors with a special interest in research may continue their research by enrolling in additional semesters of Physics 299.

Honors Program

Students can apply for departmental honors in recognition of meritorious academic achievement and creativity in research. An honors candidate must maintain an overall B- average. All eligible majors are encouraged to participate. Written applications should be submitted to the undergraduate advisor by the end of the junior year. Candidates will conduct a research project under faculty member guidance during the junior and/or senior years. A thesis describing the work must be submitted no later than April 1 of the senior year and be defended orally in a special departmental convocation about two weeks later. Recommendation for honors in physics is made on the basis of the quality of the thesis and student performance in the defense. Students may gain credit for thesis research by registering for Physics 299.

Minor requirements

The requirements for a minor in physics include six courses consisting of Physics 120/121 (or 110/111), Physics 130, Physics 131, and and one additional elective approved by the undergraduate physics advisor. Students receiving credit for a scientific perspective course in physics prior to enrolling in Physics 120 may use it to replace one elective course. Requirements are flexible and the undergraduate physics advisor can replace any of the required core courses for students who are prepared for more advanced training.

Five-year B.A./M.A.

The department offers a M.A. degree in physics to undergraduate physics majors who complete a minimum of four core graduate courses (Physics 301, 302, 305, 306, 309, and 310) and who submit an acceptable thesis based on original research. It also is possible to combine the undergraduate physics major with five-year M.A. programs in education and in environmental science and policy. Details are available from the department office.

Graduate Program

The department offers the master of arts and doctor of philosophy degrees in physics. Research is concentrated in experimental and theoretical studies of condensed matter, including magnetic and optical properties of solids, magnetic critical phenomena, superconductivity, granular matter, quantum chaos, the dynamics of first-order phase transitions, and computer simulations. Other research areas include theoretical plasma physics, interdisciplinary studies of risk assessment and energy technology, and nuclear physics.

The academic requirements are flexible, with emphasis on early student participation in research and informal student evaluation. A distinctive part of each student's course work is Physics 303, a research apprenticeship, which introduces students to different research groups beginning in the first year of graduate studies.

M.A. degree students must satisfy the general University residence and course requirements, pass with a grade of B- or better four of the core graduate courses (Physics 301, 302, 305, 306, 309, and 310) and one semester of Physics 303, and pass two oral examinations in the subject matter of the core graduate courses. In contrast to M.A. physics programs at many other universities, M.A. candidates also must complete a thesis based on original research.

Ph.D. degree students must fulfill residence and course requirements, pass the core graduate courses (Physics 301, 302, 305, 306, 309, and 310) with a grade of B or higher, and complete three semesters of Physics 303. The department does not rely on a formal written qualifying examination to evaluate student readiness for the Ph.D. Instead, students must pass four oral examinations that stress qualitative as well as quantitative aspects of the subject matter of the core graduate courses. Students are required to pass an additional graduate course (approved by the graduate student advisor) in a subject that is outside of the area of their dissertation concentration. The course may be in physics, the other sciences, mathematics, computer science, or in another appropriate field. Ph.D. candidates also complete a dissertation based on original research. Students entering with advanced standing and transferable credit are encouraged to demonstrate proficiency in the core graduate courses through oral examinations.

Graduate students in both the M.A. and Ph.D. programs are required to gain supervised teaching experience either as teaching assistants or teaching fellows in the department, or elsewhere if approved by the department.

More information about the requirements for the Ph.D. and M.A. degrees in physics is available from the Graduate Student Handbook. Copies are available upon request from the graduate student advisor.

Further information on the research interests of the faculty and research opportunities for graduate students can be found at the department's Web site, http://physics.clarku.edu.

Application forms for admission and financial aid may be requested from the chair of the department. During the academic year, financial support is available in the form of tuition remissions, teaching assistantships, and research assistantships. The department considers the financial support of its graduate students an important responsibility.

Astronomy Courses

Recommended for both nonscience and science majors as general education and to satisfy the scientific perspective requirement of the Program in Liberal Studies. Astronomy is not a formal program or major, and students interested in a career in astronomy should major in physics.

001 Exploring the Universe/ Lecture/Observatory

Concepts and methods of science for non-science majors. Devoted to the planets, sun, stars, their life cycles, and the galaxies. Involves physics, chemistry, biology, and geology. Explores theories of the composition and origin of the solar system, the universe, and life. Students observe celestial objects including the moon, sun, planets, meteors, stars, nebulae, and galaxies using telescopes in the University observatory. Minimal use of mathematics. Satisfies the scientific perspective requirement in the Program of Liberal Studies. Mr. Davies/ Offered every fall

002 THE PLANETS AND SPACE EXPLORATION/ LECTURE/OBSERVATORY

Can be taken as a first course in astronomy or as a second course after Astronomy 001. Emphasizes the solar system and past and future projects for its exploration. Topics include the sun, comets and asteroids, planetary and satellite surfaces, and planetary interiors and atmospheres. The principles of rocket flight and the motion of objects in the solar system are treated qualitatively and with simple algebra. Satisfies the scientific perspective requirement in the Program of Liberal Studies. Mr. Davies/Offered every spring

Physics Courses

10 EINSTEIN AND HIS IDEAS/FIRST-YEAR SEMINAR/DISCUSSION, LABORATORY

Introduces space-time concepts associated with relativity, gravitation, and Einstein's contribution to the development of quantum theory. Einstein's views on social, political, philosophical issues, and his influence on contemporary culture are discussed. Competence or background in mathematics and physics is not assumed. Satisfies the scientific perspective requirement in the Program of Liberal Studies. Formerly Physics 100. Mr. Gould/Offered periodically

20 DISCOVERING PHYSICS/LECTURE, LABORATORY

Emphasizes hands-on experience and the learning of science in a way similar to how science should be taught to children and how scientists gain new knowledge. Designed for students interested in education, but is open to all undergraduates; no special expertise in mathematics and science is assumed. Topics include wave and particle phenomena with an emphasis on the properties of light. Several laboratories and group discussions per week. Satisfies the scientific perspective requirement in the Program of Liberal Studies. Formerly Physics 102. Mr. Blatt/Offered every year

110 INTRODUCTORY PHYSICS – PART I/ LECTURE, DISCUSSION

Introductory level, problem-oriented survey course for science majors and other students. Stresses the simplicity and self-consistency of physical models in explaining a variety of physical phenomena. Topics include Newtonian mechanics, wave motion, and an introduction to the thermal properties of matter. Calculus is not required, but elements of calculus are introduced during the course. Physics 110, with Physics 111, fulfills the usual entrance requirements for medical and dental schools. Three lectures and one discussion section per week. Satisfies the formal analysis requirement in the Program of Liberal Studies. Mr. Landee, Mr. Blatt/Offered every semester

111 INTRODUCTORY PHYSICS – PART II/ LECTURE, DISCUSSION, LABORATORY

A continuation of Physics 110. Topics include electricity, magnetism, optics, relativity, atomic physics, and nuclear physics. Students who do not intend to take a second year of physics should enroll in this course instead of Physics 121. Three lectures and one laboratory per week. The laboratory is designed to fulfill the usual entrance requirements for medical and dental schools. This course satisfies the scientific perspective requirement for the Program of Liberal Studies. Mr. Blatt, Mr. Landee/ Offered every semester

120 INTRODUCTORY PHYSICS – PART I/ LECTURE, DISCUSSION

Problem-oriented course intended for science majors that is more in-depth than Physics 110. Topics include Newtonian mechanics and wave motion. Course should be taken with Math 124 so the elements of calculus and its applications to physics can be treated at the same time. Three lectures and one discussion section per week. Corequisite: Mathematics 120 or 124. Satisfies the formal analysis requirement in the Program of Liberal Studies. Formerly Physics 110.2. Mr. Agosta, Mr. Kudrolli/Offered every fall

121 INTRODUCTORY PHYSICS – PART II/ LECTURE, DISCUSSION

Continuation of Physics 120 which offers a more in-depth introduction to physics than Physics 111. The topics of electricity, magnetism, light and optics are discussed. Recommended second semester course for physics, mathematics, and other science majors who intend to continue with Physics 130. Three lectures and one laboratory per week. Credit is not given for both Physics 111 and 121. Satisfies the scientific perspective requirement of the Program of Liberal Studies. Corequisite: Mathematics 121 or 125. Formerly Physics 112. Mr. Agosta, Mr. Kudrolli/Offered every spring

125 COMPUTER SIMULATION LABORATORY/DISCUSSION, LABORATORY

Introduces methods of computer simulation and its diverse applications. Course is project-oriented, with students proceeding at their own pace depending on their background and interests. Projects include planetary motion, chaotic systems, fractal phenomena, random systems, and thermal systems. Methods include the numerical solution of differential equations and Monte Carlo techniques. Course emphasizes structured programming, and is recommended for prospective science majors as an introduction to programming rather than Computer Science 101. Two laboratory sections and two discussion periods per week. Satisfies the scientific perspective requirement of the Program of Liberal Studies. Prerequisites: Physics 120, Mathematics 120 or 124, or instructor permission. No background in computer programming is required. Formerly Physics 115. Mr. Gould/Offered every spring

130 OSCILLATIONS, WAVES, AND OPTICS/SEMINAR, LABORATORY

The third of a four-semester introductory survey of physics. The seminar meets for three hours per week plus an afternoon laboratory. Oscillations and harmonic motion, wave phenomena such as interference, diffraction, and standing waves, plus ray and wave optics are some of the topics covered. Key experiments include studies of mechanical, acoustic, and optical standing, resonance in oscillating systems, construction of optical instruments, and the measurement of the speed of light. Prepares the student for the study of quantum waves in Physics 130. Satisfies the scientific perspective requirement. Prerequisites: Physics 111 or 121; corequisite: Mathematics 130. Formerly Physics 113. Ms. Landee/Offered every year

131 QUANTUM PHYSICS/SEMINAR, LABORATORY

The last in a four-semester survey of physics intended to follow Physics 130. After an introduction to relativity theory, the course emphasizes the experimental basis of atomic and nuclear structure leading to the development of wave mechanics. The laboratory uses modern research instrumentation to address contributions by Einstein, Rutherford, Compton, Moseley, Chadwick, and others. A special section deals with the technological application of nuclear fission and fusion. Satisfies the scientific perspective requirement of the Program of Liberal Studies. Prerequisite: Physics 130; corequisite Mathematics 131. Formerly Physics 114. Mr. Blatt/Offered every spring

140 ENERGY AND THE ENVIRONMENT/LECTURE, DISCUSSION

Discusses the central role of energy production, distribution, and consumption in human activities, and the range of social, economic, and political impacts that follow. Experiments and data analysis will be conducted using the University campus physical plant as an extended laboratory. This course is cross listed with ES&P 140. Formerly Physics 130. Mr. Blatt/Offered periodically

150 STATISTICAL AND THERMAL PHYSICS/LECTURE, DISCUSSION

Introduces the concepts of thermodynamics, statistical mechanics, and kinetic theory with the goal of understanding the behavior of macroscopic systems on the basis of microscopic theory. Topics include probability, entropy and the second law of thermodynamics, the Boltzmann probability distribution, heat and work, and the first and second law efficiencies of simple engines. Prerequisite: Physics 130; corequisite: Mathematics 131. Formerly Physics 123. Mr. Gould/Offered every fall

160 CLASSICAL MECHANICS/LECTURE, DISCUSSION

Physics 160 and 161 constitute an introduction to the concepts of classical physics at the intermediate level. Topics include particle and rigid body dynamics in inertial and noninertial reference frames. The necessary mathematical methods are introduced and applied. Prerequisites: Mathematics 131 and Physics 111 or 121. Formerly Physics 161. Mr. Davies, Mr. Gould/Offered every fall

161 ELECTRICITY AND MAGNETISM/LECTURE, DISCUSSION

Continuation of Physics 160. Topics include electro- and magnetostatics and electrodynamics through Maxwell's equations and relativity. Develops useful mathematical methods. Prerequisite: Physics 160. Formerly Physics 162. Mr. Gould, Mr. Kudrolli/Offered every spring

171 ATOMIC AND NUCLEAR PHYSICS/ LECTURE, DISCUSSION

Intermediate level course providing an introduction to quantum mechanics and its applications to atoms, nuclei, molecules, and solids. Prerequisites: Physics 131 and Mathematics 131. Formerly Physics 174. Mr. Agosta, Mr. Landee/Offered every year

201 CLASSICAL DYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include Hamilton's principle, classical scattering theory, rigid body motion, canonical transformations, Hamilton-Jacobi theory, and mathematical methods of physics. Lectures are the same as Physics 301, but the assignments and evaluation are separate. Prerequisite: Physics 160 and 161. Mr. Davies/ Offered every year

202 ELECTRODYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include boundary value problems in electrostatics and magnetostatics, electromagnetic field equations and special relativity, electromagnetic waves, radiation theory, multipole fields, and mathematical methods of physics. Lectures are the same as Physics 302, but the assignments and evaluation are separate. Prerequisite: Physics 161. Mr. Davies/ Offered every year

205 QUANTUM MECHANICS – PART I/LECTURE

Physics 205 and 206 constitute a comprehensive introduction to the concepts of quantum mechanics and their application in physics and chemistry. Sequence prepares students for graduate work. Lectures are the same as in Physics 305, but the assignments and evaluation are separate. Prerequisites: Physics 171 and Mathematics 131. Mr. Davies/Offered every year

206 QUANTUM MECHANICS – PART II/LECTURE

Physics 206 is a continuation of Physics 205. Prerequisite: Physics 205. Mr. Davies/Offered every year

209 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. The lectures are the same as in Physics 309, but the assignments and evaluation are separate. Prerequisites: Physics 150 and 171. Mr. Gould, Mr. Phillies/Offered every year

219 ELECTRONICS LABORATORY/LECTURE, LABORATORY

Examines principles of modern electrical measurement and control. Introduces DC and AC circuit theory and use of test instruments such as multimeters and the oscilloscope. Emphasizes electronic circuit design, operational amplifiers, and digital circuits. Two lectures and one laboratory each week. Suitable for intermediate level undergraduates and graduate students in the sciences. Mr. Agosta/Offered every fall

225 ADVANCED COMPUTER SIMULATION LABORATORY

Similar to Physics 125 but more advanced. Suitable for graduate students in the sciences or undergraduates who have completed Physics 125. Prerequisite: Physics 125 or instructor permission. Mr. Gould/Offered every spring

290 SENIOR SEMINAR/SEMINAR

This capstone covers a selection of topics of current interest in physics. Offered for variable credit. Staff/Offered periodically

299.1 DIRECTED READINGS IN PHYSICS

Directed readings in physics in areas not covered in regular courses. Offered by arrangement and for variable credit. Staff/Offered every semester

299.2 SPECIAL PROJECTS IN PHYSICS

Independent research project in experimental, theoretical, or applied physics, with the guidance of a faculty advisor. Normally taken in the senior year to fulfill the senior project requirement.

Students may enroll in Physics 299 more than once. Offered for variable credit. Faculty advisor permission required. Staff/Offered every semester

299.8 HONORS COURSE

Primarily for majors seeking departmental honors in physics. Offered for variable credit. Prerequisites: Physics 299.1 and advisor permission. Staff/Offered every semester

301 CLASSICAL DYNAMICS

Graduate level course in classical mechanics. Topics are similar to Physics 201, but are treated in greater depth. Mr. Davies/Offered every fall

302 CLASSICAL ELECTRODYNAMICS

Graduate level course in classical electromagnetism. Topics are similar to Physics 202, but are treated in greater depth. Mr. Davies/ Offered every spring

303 RESEARCH APPRENTICESHIP

Research apprentices participate actively in an experimental or theoretical research group. Ph.D. students enroll in the course for three semesters with a minimum of one semester in a theoretical group and one semester in an experimental group. M.A. students take a minimum of one semester. Staff/Offered every semester

305 QUANTUM MECHANICS – PART I/ LECTURE, DISCUSSION

Physics 305 and 306 are a comprehensive introduction to quantum mechanics and its application in physics and chemistry. Topics include the foundations of quantum mechanics, symmetries and angular momentum, particle in a central potential, electron spin, and perturbation theory. Mr. Davies/Offered every fall

306 QUANTUM MECHANICS – PART II/ LECTURE, DISCUSSION

Physics 306 is a continuation of Physics 305. Topics include scattering theory, interaction of radiation with matter, second quantization, applications to simple atoms and molecules, and an introduction to many-body theory. Mr. Davies/Offered every spring

309 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Examines statistical mechanics with applications to physical and chemical systems. Topics include ensemble theory, the statistical basis of thermodynamics, quantum statistics, the virial expansion of a classical gas, ideal Bose and Fermi systems, the renormalization group, and fluctuations. Mr. Gould, Mr. Phillies/Offered every fall

310 SOLID STATE PHYSICS/LECTURE, DISCUSSION

Examines experimental properties and quantum theory of solids. Topics include crystal and reciprocal lattice structures, the free electron theory of metals, electronic band structure and the Fermi surface, lattice vibrations, and the elementary excitations of solids. Prerequisite: Physics 305 or permission of instructor. Mr. Landee/Offered every spring

317 SOLID STATE SPECTROSCOPY/SEMINAR

Theoretical and experimental review of the physics of solids observed using spectroscopic methods. Staff/Offered periodically

318 ADVANCED STATISTICAL MECHANICS/ LECTURE, DISCUSSION

Treats the statistical mechanics of interacting systems, including the theory of critical phenomena and kinetic theory. Other advanced topics of current research interest are discussed. Prerequisite: Physics 309. Mr. Gould/Offered periodically

319 ADVANCED ELECTRONICS LABORATORY/ LECTURE, LABORATORY

Similar to Physics 219, but more advanced. Topics are treated in greater depth. Suitable for graduate students in the sciences. Mr. Agosta/ Offered every year

320 ADVANCED SEMINAR IN PHYSICS

Provides for special coverage of topics in physics of current research interest. Offered for variable credit. Staff/Offered periodically

325 RESEARCH SEMINAR

Student participation seminar on current research problems. Offered for variable credit. Staff/Offered periodically

390 COLLOQUIUM

Weekly invited lecturers speak on current research topics. Required for all graduate students and recommended for undergraduates involved in research. Not offered for credit. Staff/Offered every semester

398 RESEARCH
Thesis and dissertation preparation. Offered for variable credit. Staff

PSYCHOLOGY

Program Faculty

Leonard Cirillo, Ph.D., chair: *metaphor, psychotherapies*
Michael E. Addis, Ph.D.: *psychotherapy process and outcome, laypersons' explanations of the causes and treatment of problems in living, psychopathology and the male gender-role*
Sandra T. Azar, Ph.D.: *high risk families, parenting, child abuse, legal issues and the family and developmental skills underlying self-control, adolescent depression*
Michael Bamberg, Ph.D.: *language acquisition, narratives, discourse analysis, identity development*
Nancy Budwig, Ph.D.: *language development, socialization, discursive psychology*
Joseph de Rivera, Ph.D.: *the structure and function of different emotions, the relationships between emotion and action, the social psychology of peace and justice*
Rachel Joffe Falmagne, Ph.D.: *language and reasoning, women, psychology and society*
Wendy S. Grolnick, Ph.D.: *motivation and development, self-regulation of emotion and behavior in infancy and early childhood, parent and teacher influences on children's motivation and adjustment, child clinical psychology*
James D. Laird, Ph.D., *emotional experience, self-perception, attributions to others, structures of person awareness, world hypotheses as personality variables*
James P. McHale, Ph.D.: *co-parenting and whole family dynamics, gender issues, children's understanding of relationships, community psychology and prevention*
David A. Stevens, Ph.D.: *taste and smell, psychophysics*
Nicholas S. Thompson, Ph.D.: *evolutionary theory and communication in animals and humans*
Jaan Valsiner, Ph.D.: *cultural psychology, history of ideas*
Penelope Vinden, Ph.D.: *children's understanding of mind; cognitive development and its sociocultural context; language, literacy, and thought*
Marianne Wiser, Ph.D.: *cognitive development, especially concept acquisition*

Other Faculty

Robert W. Baker, Ph.D.
Roger Bibace, Ph.D.
Bernard Kaplan, Ph.D.
Ina C. Uzgiris, Ph.D.
Seymour Wapner, Ph.D.
Morton Wiener, Ph.D.

Adjunct Faculty

Sharon Griffin, Ph.D.
Linda Kennedy, Ph.D.

Part-time Faculty

Robert A. Ciottone, Ph.D.
Cathleen Crider, Ph.D.
Edith F. Kaplan, Ph.D.
Eydie Kasendorf, Ph.D.
Robert J. O'Connell, Ph.D.
Marlene Oscar-Berman, Ph.D.
Alan Rosenbaum, Ph.D.

Research Associates

Jonathan Demick, Ph.D.
Mark Quirk, Ed.D.
Mary Walsh, Ph.D.

Frances L. Hiatt School of Psychology

The Frances L. Hiatt School of Psychology, formed in 1987, has a major endowment provided through the generous support of the Hiatt family. The school, which encompasses the Department of Psychology, with the Heinz Werner Institute for Developmental Analysis, and the Department of Education, provides additional opportunities for graduate students. In addition to Frances L. Hiatt Graduate Fellowships, opportunities for organizing and attending conferences are available, as are support for travel and research activities for the school's faculty and students.

The Heinz Werner Institute for Developmental Analysis

Associated with the department is the Heinz Werner Institute for Developmental Analysis, which has three aims: to integrate various research programs dealing with developmental problems; to attract scholars, teachers, and research workers from disciplines for which developmental problems are pertinent, such as anthropology, biology, and certain areas of medicine; and to train research workers on postdoctoral levels in the comparative-developmental approach to behavior. For more information, write to Dr. Seymour Wapner, chair of the institute's Executive Committee.

Undergraduate Program

The Department provides educational experiences that both contribute to liberal arts education and prepare students for graduate work in psychology or related disciplines. Its program emphasizes the role of psychological scholarship in understanding human behavior and experience. The culmination of the program is its small and intensive capstone courses that offer students an opportunity to participate fully in the theoretical and research life of the Department.

Introductory Courses in Psychology

The six introductory courses provide a foundation in the content and method of psychology and should normally be completed by the end of the sophomore year.

The introductory courses include 101 General Psychology, two methods courses, 105 Quantitative Methods and 107 Approaches to Psychological Research (107), and at least one course EACH from three broad content areas of psychology. These are:

Basic Processes (BP): Courses in evolutionary psychology, physiological psychology, learning, sensation, and perception and cognition. Choose from:

- 120 Human Cognition
- 130 Psychology of Learning
- 135 Paradox of Animal Sociality
- 136 Animal Instinct, Animal Mind
- 140 Biology of the Brain
- 142 Sensation and Perception

Development (DEV): Courses in historical, cultural, and human developmental psychology. Choose from:

- 150 Development in Child and Adolescent
- 156 Cultural Psychology
- 158 Self, Discourse, and Construction
- 160 Language, Emotion, Thought, and Culture

Social/Personality (S/P): Courses in social, clinical, personality, and abnormal psychology. Choose from:

- 170 Social Psychology
- 172 Psychology of Personality
- 173 Introduction to Abnormal Psychology
- 175 Introduction to Clinical Psychology
- 176 Introduction to Peace Studies

Declaring a Psychology Major and Related Field

A student nearing the end of his or her sequence of introductory courses should come to the Department Office to declare a major and be assigned a Psychology advisor. This formality will normally occur by the spring of a student's sophomore year. When declaring a major, a student must also choose a RELATED FIELD. The related field requirement reflects the conviction of the faculty that all academic areas are usefully related to psychology, and that understanding the relation between psychology and another discipline requires knowing that other discipline in considerable depth. A related field is generally a recognized six-course concentration or minor. Alternatively, a student may adopt as a related field any pattern of six courses that his or her psychology advisor has approved as providing depth of knowledge in a discipline related to psychology.

Mid-Level Courses

In addition to the above six introductory courses, majors must take TWO mid-level courses that provide experience with the two fundamental activities of academic psychology, the conduct of psychological investigations and the analysis and interpretation of psychological literatures. Students complete at least ONE EACH of the following types of mid-level courses during the junior year.

First Seminars focus on the attentive analysis of psychological texts, articulation of opinions concerning psychological issues, and the use of library and reference skills in psychological writing. (Permission to take a capstone seminar as a first seminar will not ordinarily be given and must, in any case, be obtained in writing in advance from the faculty member involved.) Choose ONE from numbers 240-259.

Laboratories focus on doing psychological research including planning, data collection, analysis, interpretation, and presentation. (Choose from numbers 200-214.) The laboratory requirement may sometimes be fulfilled by taking a research course. Research courses are opportunities to participate in faculty and/or graduate student research projects, in all stages of the research process from conceptualization to presentation. The work normally terminates in an Academic Spree Day presentation and/or co-authorship of a scholarly paper or conference presentation. Students desiring to join a research course should make arrangements with a faculty sponsor well in advance. In approaching faculty members to make these arrangements, students should bear in mind that research courses are taken on as an addition to a faculty member's normal teaching load and that space in them is limited. Choose from numbers 215-230.

Capstone Courses

Capstone courses provide an opportunity for students to participate more intensively in the analysis of a psychological literature or the pursuit of empirical research in psychology. Thus, the capstone requirement may be fulfilled by taking ONE of two kinds of courses.

Capstone Seminars are open to undergraduates and are taught at or near the graduate level. (Permission to take a second lower-level seminar as a capstone will not ordinarily be given and must, in any case, be obtained in advance in writing from the faculty member involved.) Choose from numbers 260-299.

Capstone Research. Students who can arrange a place in a faculty research group may elect a research course for their capstone experience. Students considering this option should read carefully the description of research courses above. Choose from numbers 215-230.

The Honors Program

Honors work in psychology is available to seniors who have demonstrated high scholastic achievement and the ability to work independently in scholarly situations. Students petition the department faculty for admission to the honors program with the support of a faculty sponsor and a description of a proposed research project. This research provides a basis for a thesis which, upon completion, is presented and defended by the student before an examining committee of faculty. Level of honors is determined by the full department on the basis of recommendations from its examining committees. Students interested in departmental honors in psychology should make arrangements with a faculty sponsor during the second semester of their junior year, enroll in Psychology 299 for the two semesters of their senior year, and be formally admitted to the program no later than the beginning of their senior year.

Doctoral Program

General Requirements

Only those students who plan to enroll in the Ph.D. program on a full-time basis are admitted for graduate work. The aim of the program is to provide students with a general integrated background covering the various areas of psychology. Specialization in several areas of study is available. Although a small department cannot reflect the entire spectrum of perspectives toward the study of psychology that one finds in the U.S., a considerable number of theoretical orientations are demonstrated by the faculty. Important emphasis is placed on theoretically grounded inquiry and conceptually and methodologically rigorous research. In all programs, including the clinical program, there is a deep concern with conceptual analysis and theoretically grounded and directed inquiry. Unique is the diversity of methods of investigation used by faculty and graduate students in their work and the range of problems taken to fall within the purview of psychologists. Students are acquainted not only with traditional experimental and naturalistic methods, but also with phenomenological, structural, hermeneutic, and other methodologies. Participation in research is strongly encouraged, the nature being determined by interests a student shares with faculty members. Students are expected to contribute significantly to problem formulation, conceptualization, methodology, analysis, and write-up of research work.

Advisors

A faculty advisor will be assigned to help each student plan a curriculum to best meet individual needs and goals. The advisor may change or waive any of the requirements of specific training programs with department approval, but ordinarily the advisor's function is to assist students in selecting a curriculum from within the normal requirements.

Coursework

Students ordinarily are expected to take four courses in each semester for their first two years, including Psyc 301 Problem, Theory, and Method in Psychology and Psyc 302 Statistical Methods in their first year. In subsequent years, students continue to enroll in a full program which ordinarily includes three or four content courses and research and reading courses. A total of at least 18 one-semester content courses is required for admission to candidacy for the Ph.D. There are special course distribution requirements in effect for clinical students, and clinical applicants should consult the section on Training in Clinical Psychology for information about course requirements. Content courses include: all graduate seminars; clinical methods courses; Statistical Methods; Problem, Theory, Method; and courses numbered 240-297; but do not include research and readings courses unless approved by special petition to the department, nor practicum courses (e.g., Psyc 380-389).

Research in the First Year

To encourage each student to become actively involved in research from the beginning of graduate training, a research apprenticeship program exists through which faculty and students can voluntarily begin working on research together during the first year. Participating faculty provide a brief description of current research projects in which students can become involved or notify students about when their project meetings are held. During the first two weeks of each year students have the opportunity to consider these projects and contact a faculty member to discuss becoming an apprentice in the described research project.

Qualifying Papers

To evaluate students for admission to Ph.D. candidacy, students are required to write four papers, one during each of the four semesters in the first two years in residence. Each paper should be prepared with a different full-time faculty member in the Psychology Department. The topic for each paper is to be agreed upon by the student and the faculty member. Written examinations and ordinary term papers for courses will not be accepted to satisfy this requirement. Students are encouraged to submit at least one of the four papers for publication in a scholarly journal. All papers must be submitted and evaluated prior to scheduling the oral examination on the M.A. thesis.

Qualifying Examination in Statistical Methods

Students are required to demonstrate competence in statistical methods by satisfactory performance on a qualifying examination in that area. The examination is normally taken in two parts during the student's first year, at the completion of each semester of the course in Psych 302 Statistical Methods.

M.A. Degree

The M.A. degree, a required step in our Ph.D. program, is awarded after satisfactory completion of at least eight one-semester courses or their equivalent; the fulfillment of the departmental qualifying paper requirement; and the execution of an empirical thesis under the supervision of a faculty member and adequately defended in a one-hour examination. The thesis is expected to be relatively brief and may be written in the form of an article suitable for submission to a research journal. All requirements for the M.A. degree must be completed by the end of the second year of graduate study. Students are expected to have commitments from three faculty examiners (the sponsor and two others) by June 1 to be present at an oral to be scheduled no later than June 30. Students who have not completed their M.A. degree by June 30 at the end of the second year are not permitted to enroll in courses in the third year. Instead, their status becomes Special Resident, which means they must register for Directed Readings for at least three units to be in residence while working on the M.A. requirements. Students who do not complete the M.A. degree by the end of the third year ordinarily are not permitted to continue in the Ph.D. program, but are given ample opportunity to complete a master's degree.

Major Paper and Oral Examination

The major paper, normally done within one year after completing the M.A., should demonstrate mastery of research and theory in the student's area of specialization. To facilitate completion, students are encouraged to enroll in Directed Readings with a faculty member during one or both of the semesters in which the paper is to be completed. Students are expected to meet with the sponsor and two faculty readers as early as possible in the first semester of the major paper year so that all are in agreement with the plan for the paper and their roles in it. An oral examination on this material will be held shortly after the paper has been submitted. If the paper is not finished on time, the faculty will select some of its members to give additional help to these students during the summer. Students who do not complete the paper by August 1st at the end of the third year will not be permitted to enroll as resident students for the fourth.

Satisfactory completion of at least 18 one-semester content courses (including Psyc 301 and 302), as well as the above requirements, must be met within two years of completing the M.A., or the student may be dropped from the Ph.D. program.

Ph.D. Dissertation

Students demonstrate the ability to conduct research by the presentation of an acceptable dissertation. The topic of the dissertation usually is selected by the student working with one or more members of the faculty. Once students have worked out a general research plan, a dissertation committee is formed to supervise and assist in all phases of the research effort, from articulation of the research design to the write-up of the final draft. After the committee has reviewed the dissertation proposal carefully, it is circulated to all members of the faculty for comments and suggestions. The dissertation committee then has the authority and responsibility to approve the final form of the proposal before students undertake the actual research. After completion of the research, students submit a draft of the dissertation to the committee, which will aid students in making necessary revisions. At the point that the committee decides that the dissertation is complete and ready for presentation, copies of the dissertation are made available to the entire department faculty.

Ph.D. Oral Examination

Following submission of the dissertation, a final two-hour oral examination is held in which students present and defend their dissertation and show competence in a general field of psychology as well as in their area of specialization. The Ph.D. must be completed in six years (excluding an internship year or official leave). An additional year may be granted by faculty approval of a petition on other grounds, such as part-time study because of financial necessity. Those desiring more details on graduate requirements and their timing should request a copy of "Information on the Graduate Program in Psychology."

Graduate Training in Clinical Psychology

The basic philosophy in the training of clinical psychology students, as for all graduate students in the Department, is that specialization, necessary as it is, is a process of individualization and emphasis rather than one of restriction, isolation, and compartmentalization. Our aim is to provide an integrated series of intensive educational experiences in class, laboratory, and in practicum clinical settings (in the University and in other agencies) in which specialist training in clinical psychology is attained along with increasing competence in general psychology, theory, and research. It is our hope that these aims and training procedures will equip our graduates to deal with special problems in clinical psychology from the vantage point of knowledge about contents and methods of other areas of psychology. It is assumed that this perspective will develop inquiry-oriented psychologists with creative-integrative approaches to clinical problems and their relationship to psychological knowledge. We believe that such broadly trained psychologists can be flexible enough to (1) meet the varied demands within the different settings in which the clinical psychologist currently functions; and (2) innovate conceptual approaches and methods of clinical psychology. All members of our clinical faculty, full-time and part-time, have clinical activity as part of their own day-to-day functioning, in addition to their research.

The Clinical Training Program includes course work and practica with adults and children. In addition to more traditional training, the program offers opportunities in child clinical and marital and family intervention.

The program for the Ph.D. in clinical psychology has, in addition to the general requirements, the following special requirements. Each student must take at least one course from each of three areas: (1) biological aspects of behavior (e.g., physiological psychology, behavior and evolution, human neuropsychology); (2) cognitive-affective aspects of behavior (e.g., symbolism, cognitive development, logical reasoning, action and emotion); and (3) social aspects of behavior (e.g., interpersonal relations, social cognition). Each student must take Psychopathology, Theories of Psychotherapies, and Historical Backgrounds of Contemporary Psychology. Each student must complete a minimum of one year of internship in clinical settings. All clinical students participate for four years in practicum training offered at the University or other agencies. For further information contact the Director of Clinical Training.

Graduate Study in Developmental Psychology

The developmental psychology curriculum is intended to prepare students for a career in research, teaching, and scholarly activity. It strives to impart both theoretical sophistication and competence in observational, experimental, interpretative, and comparative inquiry with regard to developmental issues. Emphasized are ways of representing and examining all life phenomena, rather than focusing exclusively on a particular population (e.g., infants, children, adults) or a specific subject matter. In-depth study is offered with particular populations and in specific areas bridging social, cognitive, and language development. In addition to requirements common to all graduate students, those with a concentration in developmental psychology are required to enroll in Psych 300 Developmental Psychology Forum and a series of six developmental seminars. Since there are no sharp separations between different areas within the department, students who work primarily in developmental psychology have the opportunity to study with other faculty in the department who have an interest in their area of specialization.

Distinctive features of the program include a strong interest in theoretical perspectives, concern with the relationship between problems and methods of inquiry, and an attempt to place questions in their historical and cross-disciplinary contexts. Faculty interests intersect around topics in the development of psychological processes in sociocultural context, specifically in the development of conceptualization and reasoning, in the study of social relations and interpersonal interactions, in the development of languages, symbolization, and communication, and in the study of the relation of environmental conditions to functioning.

Research facilities in the Department include a Child Study Area for the study of family interactions. There are opportunities for research in the schools and in other community settings. The Goddard Library has an extensive collection of books and journals going back to the inception of graduate study in psychology in the U.S. Computer facilities are available on campus and in the Department. For additional information about study in developmental psychology, write to Dr. Nancy Budwig.

Graduate Study in Social-Personality Psychology

The most distinctive feature of the social-personality curriculum is its emphasis on the description and analysis of social experience and action. Faculty members involved in this area have developed different research strategies that tap into the experiences of everyday life and the development of moral action. They focus on the social-emotional aspects of interpersonal relations, the role of affective experience in the choices that persons confront as they lead their lives, and the manner in which persons come to know and experience themselves. While there are no formal requirements in the social-personality area, students are expected to become acquainted with the main approaches to experience and action, and are encouraged to participate in seminars with as many different faculty members as possible. For further information contact Dr. Joseph de Rivera.

Graduate Study in Other Areas

Other current interests of the faculty include feminist cognition, cognition and instruction, evolutionary psychology, and the psychology of taste and smell. Teaching and research emphasize theoretical relevance and preserving and exploring the connections among areas of specialization. Faculty and students typically maintain extensive and regular interactions. In particular, most of the faculty have close connections with the developmental and social-personality areas. The Department also has education research ties with a number of institutions in the Worcester-Boston area (e.g., the Neuropsychology Unit of the Boston Veterans Administration Hospital, the Worcester Foundation for Experimental Biology, the University of Massachusetts Medical School), as well as other departments at Clark. For further information, write to the Director of Graduate Admissions.

Postdoctoral Training

The Psychology Department and the Heinz Werner Institute provide postdoctoral training. In addition to individually oriented research and training opportunities, seminars are available for postdoctoral students.

Courses

101 GENERAL PSYCHOLOGY/LECTURE, DISCUSSION

Introduction to the principles of human behavior. No prerequisite. Unless otherwise noted, this course is a prerequisite to all other psychology offerings. Mr. Laird, Mr. McHale/Offered every semester

105 QUANTITATIVE METHODS/LECTURE

Introduction to the theory and methods of statistical inference, logic of experimental design, and the use of computer statistical packages. Prerequisite: Psyc 101. Ms. Vinden, Mr. Laird/Offered every semester

107 APPROACHES TO PSYCHOLOGICAL RESEARCH/LECTURE, DISCUSSION

Focuses on the role of research in psychological thought and theoretical development, research methods, and the principles of experimental design. Covers the range of methods used by psychologists, including qualitative analyses and hermeneutics as well as the traditional experimental methods. This course is a prerequisite for all laboratory or research courses, unless otherwise noted. Mr. Bamberg, Mr. Stevens/Offered every semester

120 INTRODUCTION TO COGNITION/LECTURE

Introduction to the study of concepts, memory, language, reasoning, and other higher mental processes. The course provides an introduction to the general perspective, the current theoretical questions, and the empirical findings in the field of cognitive psychology concerning those processes/functions. Ms. Joffe Falmagne/Offered every year

130 PSYCHOLOGY OF LEARNING/LECTURE

Focuses on historical and current issues in the psychology of learning. Topics include classical and operant learning, the role of language and cognition, and continuity and discontinuity in human and non-human species. Mr. Addis, Mr. Stevens/Offered periodically

135 THE PARADOX OF ANIMAL SOCIALITY/LECTURE, DISCUSSION

Evaluates a new evolutionary perspective called sociobiology by examining Darwinian theory as it applies to animal social organizations. The course redefines such concepts as natural selection, adaptation, communication, personality, emotions, grouping, and territoriality as they apply to animal behavior. This course is run with much class discussion and emphasis on questioning theories, constructing new models, and arriving at new, clearer definitions. Prerequisite: Introductory biology or psychology normally required, but open to freshmen with special qualifications; see instructor. Mr. Thompson/Offered every year

136 ANIMAL INSTINCT, ANIMAL MIND/LECTURE, DISCUSSION

Are animals really different from human beings? Animals do most of the things that humans do: they find food, mate, raise young, form social organizations, defend space, communicate, play, fight, and negotiate conflicts. How? Is their behavior organized in an entirely different way from that of humans? Or is the behavior of all creatures rooted in a single set of principles? Mr. Thompson/Offered periodically

140 BIOLOGY OF THE BRAIN/LECTURE, DISCUSSION

An introduction to the organization and function of the nervous system. Lectures focus on the human brain with reference to knowledge obtained from animal models. Includes basic information about the anatomical, physiological, and chemical properties of the brain and how these properties enable us to perceive and move around in the environment. Laboratory/Discussion sessions include demonstrations of nerve cell signalling, testing of human reflexes and sensory perception, dissections, and discussion of issues that arise in modern neuroscience: understanding the relation between the mind and the brain. Prerequisite: Biology 101 or permission. Ms. Kennedy/Offered every year

141 BRAIN AND BEHAVIOR/LECTURE, DISCUSSION, LABORATORY

An exploration of how specific neural systems are involved in various behaviors. Emphasizes first, systems where the relationships between brain and behavior are best understood, such as perception, motivation, mood, emotion, sleep and consciousness, language, and attention. Second, information from the frontiers of neuroscience about how the biology of the brain changes as the result of experiences of the individual, including mechanisms for learning and memory, is discussed. Laboratory consists of original research, as a group, on an unsolved problem in modern neuroscience. Prerequisite: Biology/Psychology 140. Ms. Kennedy/Offered every year

142 SENSATION AND PERCEPTION/LECTURE

Studies the five senses with special emphasis on visual perception. Focuses on the processes by which information is picked up from the environment and then coded, transformed, and integrated by the sensory systems. Topics include: the neurophysiology of each sensory system, basic visual and auditory functions, pattern perception, distance and size perception, color, visual illusions, and perceptual development. Ms. Wiser/Offered every year

145 PSYCHOPHYSIOLOGY/LECTURE

Deals with how the activities of the body outside of the central nervous system interact with, reflect, or produce psychological states and processes. Topics will include the functioning of the autonomic nervous system; techniques for measuring autonomic and other bodily activities; the role of bodily activities in emotions and other feelings; lie detection; the impact of stress on autonomic functioning and on immune system function; the effects of meditation, exercise,and biofeedback on physiology and experience. Mr. Laird/Offered every year

150 DEVELOPMENT IN CHILD AND ADOLESCENT/LECTURE

Discusses the development of cognitive and social functioning in the child and adolescent. Emphasizes and contrasts theoretical approaches to conceptualizing changes in developing children in light of current studies. Mr. Bamberg, Ms. Budwig/Offered every year

156 CULTURAL PSYCHOLOGY/LECTURE, DISCUSSION

Provides a systematic overview of knowledge about cultural organization of human psychological functions, and how psychology as a research discipline can study these functions. Strong theoretical and methodological orientation is included. Mr. Valsiner/Offered every year

158 DISCOURSE, SUBJECTIVITY, AND SELF/LECTURE, DISCUSSION

Provides a multiple perspective approach to subjectivity and the self: biological, cognitive-experimentalist, experiential, social constructionist, and psychodynamic. Examines the role of discourse in how the self is constructed with special emphasis on developmental aspects. Mr. Bamberg/Offered periodically

160 LANGUAGE, EMOTIONS, THOUGHT, AND CULTURE/LECTURE, DISCUSSION

Investigates to what degree the human "mind" and the "soul" are sociocultural products and what role language plays in their formation. Specifically addresses to what degree languages differ from one another, whether the mind and emotions are separate faculties, and to what degree they can be viewed as parts of different cultural belief systems. Mr. Bamberg, Ms. Budwig/Offered periodically

170 SOCIAL PSYCHOLOGY/LECTURE, DISCUSSION

Examines love, fear, conflict, and other basic processes involved in group dynamics, interpersonal relations, community psychology, intergroup relations, organizational behavior, and the interface between human nature and culture. These basic processes are related to the Holocaust and other genocides and to attempt to achieve a world of peace and justice. In addition to quizzes and a final exam, students are asked to apply their knowledge of basic processes in a personal or political action. Prerequisite: Psyc 101 or instructor permission. Mr. de Rivera/Offered every year

172 PSYCHOLOGY OF PERSONALITY/LECTURE

Considers theories regarding behavioral differences among persons in response to the same or similar situations; includes typological, trait, psychoanalytic, traditional and neo-behavioristic, and personological conceptions. Staff/ Offered every semester

173 INTRODUCTION TO ABNORMAL PSYCHOLOGY/LECTURE

Discusses the manner in which abnormal behavior has been traditionally defined and the implications of these definitions. Provides a comprehensive overview of the major categories of abnormal behavioral disorders with an emphasis on theory and research (e.g., schizophrenia, affective disorders, substance abuse, eating disorders, etc.). Special attention is paid to issues of assessment, intervention, and prevention. Prerequisite: Psyc 172. Ms. Grolnick, Ms. Azar/Offered every year

175 INTRODUCTION TO CLINICAL PSYCHOLOGY/LECTURE, DISCUSSION

Surveys various approaches to clinical assessment and intervention. Emphasizes the assumptions underlying alternative approaches, and the actual activities of clinical psychologists. This course also covers special topics including ethics, health psychology, clinical neuropsychology, and forensic psychology. Mr. Addis/Offered every year

176 INTRODUCTION TO PEACE STUDIES/LECTURE

See Peace Studies 110. Mr. DeRivera/Offered every year

193 PSYCHOLOGY, COMMUNICATION, AND THE SELF/FIRST-YEAR SEMINAR

Explores the foundations of the mind, emotions and feelings, values and beliefs, language and languages, manners, and other cultural conventions. In traditional psychology, these concepts are viewed as properties of the private individual. The course seeks to connect these concepts with different definitions of "the self" and explore how these concepts are made sense of in different languages and how they are "done" in different ways. The aim is to create awareness of cultural differences and commonalities and to relate to studies in other areas. Fulfills the language perspective. Mr. Bamberg/Offered periodically

195 PURSUIT OF AN INQUIRY/FIRST-YEAR SEMINAR

Designed primarily for incoming students, this course provides an opportunity to pursue independent scholarship in chosen fields. Students must write a substantial term paper by the end of the semester. Class meetings are used to clarify the exposition of ideas and to train the participants in how to exploit the resources of the community for independent scholarship. Papers may be written on any topic. Psyc 101 is not a prerequisite. Mr. Thompson/Offered periodically

201 LABORATORY IN SOCIAL PSYCHOLOGY/LABORATORY, DISCUSSION

General principles of experimental design are learned through the design and performance of original experiments in experimental social psychology. Both group and individual experiments are conducted in any of the usual topic areas of social psychology. Prerequisites: Psyc 105, 107, 170, and instructor permission. Staff/Offered periodically

202 LABORATORY IN DEVELOPMENTAL PSYCHOLOGY/LABORATORY, DISCUSSION

A general introduction to conceptual issues related to research in the area of human development. Students participate in group research projects involving observational and experimental techniques and receive training in all phases of research, including formulating research questions, data collection and analysis, and report writing. Prerequisites: Psyc 105, 107, and 150. Ms. Budwig/Offered every year

203 LABORATORY IN REASONING/LABORATORY, DISCUSSION

Introduces students to the "how-to" of doing research on reasoning, using both experimental and qualitative, interview-based methods. Students conduct studies on such questions as: what role do prior knowledge, prior beliefs, and logic play in reasoning? how do people reason about the causes of everyday events? how do people draw conclusions from given information? There will be flexibility for students to engage more deeply in content areas of particular interest to them. Prerequisites: Psych 105, 107, and 120. (Psych 120 can be taken the same semester as the lab.) Ms. Falmagne/Offered periodically

204 LABORATORY IN EMOTION AND MOTIVATION/LABORATORY, DISCUSSION

Designs studies that test ideas about emotions and how they influence our actions, the gathering of data, and ways to report the data to the psychological community. Prerequisites: Psyc 105, 107, and instructor permission. Mr. deRivera/Offered every other year

205 LABORATORY IN TASTE AND SMELL/LABORATORY, DISCUSSION

Discusses concepts of experimental design and method. Experiments are conducted on the scaling of taste, smell, and flavor, such as the comparison of the sweetness and pleasantness of different sugars. Prerequisites: Psyc 105, 107, and instructor permission. Mr. Stevens/Offered periodically

206 LABORATORY IN PERSONALITY/LABORATORY, DISCUSSION

Examines issues and problems in psychological research in personality, with the problems being exemplified in class and individual studies. Research may be in conventional areas of personality research, such as perceptual defense, motives and performance, self-perception, experimenter influence, and emotions. Prerequisites: Psyc 105, 107, 172, and instructor permission. Staff/Offered every year

207 LABORATORY IN ANIMAL COMMUNICATION/LABORATORY, DISCUSSION

Explores how information is encoded in the sounds of animals and humans, using state-of-the-art sound analysis equipment. Instructor permission required. Mr. Thompson/Offered periodically

210 LABORATORY IN LANGUAGE AND COMMUNICATION/LABORATORY, DISCUSSION

A general introduction to conceptual issues related to language and communication research. Students participate in group projects involving observational and experimental techniques and will receive training in all phases of research, including formulating research questions, data collection and analysis, and report writing. Prerequisites: Psyc 105, 107, and instructor permission. Mr. Bamberg/ Offered periodically

211 LABORATORY IN COMMUNITY PSYCHOLOGY/LABORATORY, DISCUSSION

Concerned with the prevention of mental-health problems and enhancement of individual functioning through the strengthening and empowerment of communities. Weekly lectures introduce essential principles, methods, and knowledge in the field; in weekly discussion sessions, students design, conduct, and evaluate their own community research projects. Students present projects and findings at a research symposium at semester's end. Prerequisites: Psyc 105, 107, 172, and instructor permission. Mr. McHale/Offered periodically

212 LABORATORY IN GENERAL PSYCHOLOGY/LABORATORY, DISCUSSION

Students develop skills investigating various aspects of human behavior and experience. Prerequisites: Psyc 101, 105, 107, and instructor permission. Staff/Offered periodically

213 LABORATORY IN FAMILY PROCESSES/LABORATORY, DISCUSSION

Examines family-based correlates of early socio-emotional development. Qualitative and quantitative methods are examined, and both self-report and observational methodology are used to assess individual, dyadic, and whole family functioning. Topics vary, but may include studies of dyadic and family play; intimate relationships among married couples; family-based correlates of children's peer relationships; and other topics. Prerequisites: Psyc 105, 107, 172, and instructor permission. Mr. McHale/Offered periodically

214 LABORATORY IN INTERVIEWING/LABORATORY, DISCUSSION

Enables students to use interviews as a research tool productively and responsibly, with emphasis on structured, focus group, and unstructured (qualitative) interviews. The different approaches and techniques will be explored theoretically and with practical exercises. A valuable research prerequisite for doing honors work in the social sciences. Prerequisite: Psyc 107 or permission. Mr. Bamberg/Offered periodically

216 RESEARCH IN HEALTH PSYCHOLOGY/LABORATORY, DISCUSSION

Students participate in an ongoing research program in collaboration with the instructor and his colleagues. Instructor permission required. Mr. Bibace/Offered periodically

215 RESEARCH IN EMOTION/LABORATORY, DISCUSSION

Working in close collaboration with the instructor, students design, conduct, and present a piece of research that investigates an emotional or motivational phenomenon. Instructor permission required. Mr. deRivera/Offered periodically

218 RESEARCH IN FAMILY DYNAMICS/ LABORATORY, DISCUSSION

Students participate in the design, conduct, and interpretation of experiments in an ongoing research program in family dynamics and child development. Instructor permission required. Mr. McHale/Offered every year

219 RESEARCH ON MIND IN CONTEXT/LABORATORY, DISCUSSION

Explores the relationship between children's developing understanding of mind, parenting style, and performance in school. Students join the professor in an ongoing research project. Prerequisite: 107 and permission from instructor. Ms. Vinden/Offered every semester.

220 RESEARCH IN CHEMORECEPTION/ LABORATORY, DISCUSSION

With the instructor, students design, conduct, and interpret research in taste, smell, and flavor. Instructor permission required. Mr. Stevens/Offered every year

221 RESEARCH IN SOCIAL PSYCHOLOGY/LABORATORY, DISCUSSION

Students participate in the design, execution, analysis, and interpretation of research on self-awareness and self-knowledge, including areas of emotions, attitudes, and abilities. Prerequisites: Psyc 105, 107, 170, and instructor permission. Mr. Laird/Offered every year

222 RESEARCH IN CONCEPTUAL DEVELOPMENT/LABORATORY, DISCUSSION

Students participate in an ongoing conceptual development research program in collaboration with the instructor. Instructor permission required. Ms. Wiser/Offered periodically

223 RESEARCH IN MOTIVATIONAL AND EMOTIONAL DEVELOPMENT IN INFANTS, CHILDREN, AND ADOLESCENTS/LABORATORY, DISCUSSION

Ongoing research project on the effects of parent-child interaction on emotional and motivational development with a research team. Prerequisites: Psyc 105, 107, and instructor permission. Ms. Grolnick/Offered every semester

224 RESEARCH ON IDENTITY DEVELOPMENT/LABORATORY, DISCUSSION

Designed to train students in an ongoing research project on the development of subjectivity and identity in and through discourse, particularly narrative discourse. Instructor permission required. Mr. Bamberg/Offered periodically

225 RESEARCH IN FAMILY AND CHILD/LABORATORY, DISCUSSION

Students participate in ongoing research projects that examine family issues either with children, adolescents, or parent-child dyads. The research takes place within a cognitive behavioral framework. Instructor permission required. Ms. Azar/Offered every year

226 RESEARCH IN BIOACOUSTICS/LABORATORY, DISCUSSION

The research analyzes animal and human infant sounds to describe their form and discover their significance. Meets weekly to plan and carry out research projects. Limited enrollment. Instructor permission required. Mr. Thompson/Offered every year

227 RESEARCH IN PSYCHOTHERAPY/LABORATORY, DISCUSSION

Studies the process of change in various forms of psychotherapy. Students can participate in the formulation of a question and systematic evaluation of hypotheses pertaining to specific client-therapist interactions. Instructor permission required. Mr. Addis/Offered periodically

228 RESEARCH ON DEVELOPMENTAL ASPECTS OF TRANSACTIONS OF PERSONS-IN-ENVIRONMENTS/LABORATORY, DISCUSSION

Discusses theory, findings, and research problems deriving from an ongoing research program—a holistic-developmental, systems-oriented approach to the analysis of transactions of persons-in-environment. A research proposal and final report describing the research project are prepared. Ideally, the research is presented at undergraduate or professional meetings, and a manuscript is prepared for submission to a journal. Prerequisites: Psyc 105, 107, and instructor permission. Mr. Wapner/Offered every semester

229 RESEARCH IN THE DEVELOPMENT OF LANGUAGE AND LANGUAGE SOCIALIZATION/LABORATORY, DISCUSSION

Students participate in an ongoing language development and language socialization research program. Students are responsible for various phases of research, including preparing literature surveys, analyzing data, and interpreting results. Towards the end of the semester, students prepare a written paper describing their work. Instructor permission required. Ms. Budwig/Offered every semester

230 RESEARCH IN CULTURAL PSYCHOLOGY/LABORATORY, DISCUSSION

Provides students with an overview of the empirical research practices in different branches of cultural psychology, and with practical skills in designing and carrying out one's own (or group) project within the semester. Basic issues that will be covered: relations of theory, methods, data, and phenomena in cultural psychology; how can methods from psychology, anthropology, and sociology be integrated in the case of concrete studies; uses of historical and personal documents in data construction in cultural psychology. Instructor permission required. Mr. Valsiner/Offered periodically

243 SEMINAR IN PHENOMENOLOGICAL PSYCHOLOGY/FIRST SEMINAR

Describes and analyzes personal experience. Each of the readings describes a different aspect of experience. These are then compared with our own experience of our body, our environment, ourselves, others, our emotions, actions, and thoughts, and with our imagination and our relationship to reality. Mr. deRivera/Offered periodically

244 COGNITIVE DEVELOPMENT/FIRST SEMINAR

This seminar explores the perceptual and cognitive abilities of babies and young children. How does their knowledge of physical objects, space, the biological world, number, and people's minds and behaviors evolve? How does their ability to imitate and communicate develop? How do they learn to categorize and label objects? How does reasoning and problem-solving change with age? Different theoretical approaches will be considered, especially with respect to the role of experience and innate factors in development (the nature/nurture issues). Psych 120 or 150 and permission of instructor required. Ms. Wiser/Offered periodically

245 HISTORY OF PSYCHOLOGY IN ITS CULTURAL CONTEXTS/FIRST SEMINAR

Provides an overview of the history of the discipline as it has been embedded in the contexts of different societies (e.g., Germany, USA, Russia, France) and as it has survived through the turmoil of the 20th century. Focus will be on the analysis of how psychology became quasi-independent from philosophy, and how social-political pressures in various societies at different times participated in the development of the discipline as a social institution. Permission of the instructor is required. Mr. Valsiner/Offered periodically

246 PSYCHOLOGY OF PEACE-MAKING/FIRST SEMINAR

Examines the psychological dimension that is always present in trying to achieve peace and justice within ourselves, in our interpersonal relationships, and in inter-group relations. Topics include political sociology, the management of aggression, negotiation, mediation, forgiveness, and training for the non-violent action necessary to achieve justice. Mr. de Rivera/Offered every other year

247 THEORETICAL MODELS OF COMMUNICATION IN PSYCHOLOGY/FIRST SEMINAR

Provides students with systematic knowledge about the ideas of communication as these have moved between psychology, anthropology, language philosophy, sociology, and cultural studies. Permission of the instructor required. Mr. Valsiner/Offered periodically

248 CHILDREN'S UNDERSTANDING OF MIND/FIRST SEMINAR

Explores the development of children's understanding of mind, i.e., their understanding of people as intentional agents whose thoughts can be used to predict their actions. Topics include precursors to a "theory of mind," primates' understanding of mind, theories of "theory of mind," and social and cultural influences on its development. Prerequisite: permission of instructor. Ms. Vinden/Offered every year

249 WOMEN IN SOCIETY/FIRST SEMINAR

Examines women's psychological functioning and development in broad societal context. There are three parts: the societal context, including anthropological and sociological examinations of women's cultural status in various societies, and of economic, historical, and symbolic factors impinging on the individual (language, media, literature, cultural institutions); individual functioning in context, covering such topics as women's personal development, life issues of women, intellectual functioning, and power; women's roles and functions in society, including issues relating to role choices and adult development. Ms. Joffe Falmagne/Offered every year

250 THEORIES OF FAMILY PROCESSES/FIRST SEMINAR

Exposes students to the major theories of family processes (e.g., biological, psychodynamic, structural, and behavioral views). Focuses on how the family as a system responds to stress, such as developmental shifts, illness, and psychological disorder. Film and literature portrayals of families are utilized. Instructor permission required. Ms. Azar/Offered periodically

251 LANGUAGE DEVELOPMENT/FIRST SEMINAR

A comprehensive survey of the basic issues and topics involved in the study of language development. The course begins with an examination of the structure of language and the varied uses of language in human activity. Against this background the course turns to the question of how children acquire language, with special emphasis on the contributions of cognitive, social, and language-specific factors in this process. Instructor permission required. Mr. Bamberg, Ms. Budwig/Offered every year

252 SEMINAR IN AGGRESSION/FIRST SEMINAR

The various forms of aggressive behavior are considered from both a theoretical and practical perspective, with strong emphasis on psychological aspects of aggressive behavior. In addition to obvious forms of aggression, including domestic aggression, homicide, war, and gang violence, aggressive aspects in art, music, sports and the corporate world are considered. Prerequisites: Psyc 101 (Psyc 173 helpful but not required); instructor permission. Mr. Rosenbaum/Offered periodically

253 NARRATIVE DISCOURSE/FIRST SEMINAR

Relates social, cultural, and historical frames to how people talk, particularly to narrating, i.e., storytelling in different social/institutional settings. Special emphasis is given to the study of narratives from developmental perspectives. Prerequisite: permission of the instructor. Mr. Bamberg/Offered periodically

254 ETHNOPSYCHOLOGY/FIRST SEMINAR

Using readings in philosophy of mind and a study of the relevant Western understanding of mind, a variety of folk psychologies will be explored. Factors affecting individual development and questions concerning the source and expression of emotions will be explored with an emphasis on methodology and cultural research. Designed for juniors. Permission required. Ms. Vinden/Offered periodically

256 THE PSYCHOLOGY OF LOVE AND HATE IN LIFE AND LITERATURE/FIRST SEMINAR

An examination, via reading and discussing short stories, as well as critical scrutiny of various theories, of the diverse manifestations of love, hate, and kindred emotions in everyday life. The relations of emotional life to attitudes and actions are considered throughout the life span and in social-collective phenomena, as well as psychopathology. Prerequisite: instructor permission. Mr. Kaplan/Offered periodically

258 DEVELOPMENT OF SENSE OF SELF/FIRST SEMINAR

Examines stages in the development of an adult sense of self from a variety of theoretical perspectives (cognitive, psychoanalytic, sociocultural, dynamic systems). Explores emotion possibilities and vulnerabilities inherent in each successive sense of self, the effects of early socialization experience, multiple pathways, and multiple endpoints (gender and cultural identities). Prerequisites: Psych 150, 120, and instructor permission. Ms. Griffin/Offered periodically

259 PSYCHOTHERAPIES/FIRST SEMINAR

A variety of methods of curing symptoms, solving problems in living, and promoting personal development are considered through class discussion and illustration and through intensive reading of primary sources. Prerequisites: Psyc 172 and instructor permission. Staff/Offered every year

260 INTERPRETATION OF DREAMS AND OTHER PRODUCTS OF THE IMAGINATION/CAPSTONE SEMINAR

Deals with the exposition, application, and critical evaluation of various systems for the interpretation of dreams and other products of the imagination (poetry, art, mythology). Included for examination are the theories of Freud, Jung, Boss (phenomenological), May (existential), and Burke/Kaplan (genetic-dramatism). Problems of validity of interpretation are discussed, and the relation of dream interpretation to the interpretation of other products of the imagination is examined. Open to juniors, seniors, and graduate students. Prerequisite: Permission of the instructor. Mr. Kaplan/Offered periodically

261 HUMAN NEUROPSYCHOLOGY/LECTURE, DISCUSSION

Approximately ten prominent lecturers review and discuss current research. Topics include overview of brain organization, brain electrical potentials, cerebral dominance, neuroanatomy and pathology of language, bilingualism, emotion, and psychosurgery. Year-long course; divisible. Open to advanced undergraduates and graduate students. Ms. Oscar-Berman, Ms. Kaplan/Offered every year

262 COMMUNICATION: VERBAL AND NONVERBAL/CAPSTONE SEMINAR

Considers communication forms, patterns, and contexts as personal and social actions for different populations and cultures. Mr. Wiener/ Offered periodically

263 CONTEMPORARY FAMILY RESEARCH/CAPSTONE SEMINAR

Bridges the fields of family theory and therapy with contemporary family research. Examines major schools of family therapy (psychoanalytic, structural, strategic, family of origin, and narrative approaches), and considers themes and trends in current family research. Special attention is given to gender and couples issues. Students take an active role in researching and presenting topics of interest. Instructor permission required. Mr. McHale/Offered periodically

264 THEORY AND RESEARCH IN SOCIAL AND PERSONALITY DEVELOPMENT/CAPSTONE SEMINAR

Explore theories and research on the socialization and individuation (and their interaction) of the developing infant, child, and adolescent. Highlights contributions of the child, the family, the larger sociocultural context, and their interplay. Topics covered include parent-child attachment, temperament, peer relations, prosocial behavior, moral and ego development, and sex-role socialization. Research methods and analysis in developmental research (e.g., modeling growth and change) will be addressed. Ms. Grolnick/Offered periodically

267 EVOLUTIONARY PSYCHOLOGY/CAPSTONE SEMINAR

Explores intellectual history and contemporary data concerning the idea that human behavior is determined by its evolutionary history. Instructor permission required. Mr. Thompson/ Offered every year

268 COMMUNICATIVE DEVELOPMENT/CAPSTONE SEMINAR

Focuses on various approaches to an understanding of human communication from an interdisciplinary perspective. Explores the relationship between social, cognitive, and linguistic factors in children's communicative development. Instructor permission required. Ms. Budwig/Offered periodically

269 MOTIVATION/CAPSTONE SEMINAR

Examines the concept of motivation. Several theoretical models are discussed, including those of psychoanalytic, ethological, and learning theories. Mr. Stevens/Offered periodically

270 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY/CAPSTONE SEMINAR

An intensive treatment of selected areas in social psychological research and theory, including consistency theories in attitude formation and in interpersonal perception; attribution theory in self-perception; and social/situational determinants of normal, everyday behavior and of antisocial behaviors such as violence, criminality, and riots. Ordinarily limited to senior majors in psychology or sociology. Instructor permission required. Mr. Laird/ Offered periodically

275 THINKING AND REASONING/CAPSTONE SEMINAR

Covers current issues in the study of reasoning, exploring what kinds of knowledges people utilize in drawing inferences from prior information. Examines how reasoning is shaped by the reasoning context, the form and content of a problem, and the societal context. Instructor permission required. Ms. Joffe Falmagne/ Offered periodically

276 ADVANCED TOPICS IN CULTURAL PSYCHOLOGY/CAPSTONE SEMINAR

Devoted to a specific subtopic unique for each semester. Designed for seniors and graduate students. Permission of the instructor required. Mr. Valsiner/Offered periodically

279 BASIC DEVELOPMENTAL THEORIES/CAPSTONE SEMINAR

Provides a systematic overview of core ideas in the selected theories and guides students to analyze these from the viewpoint of how theories relate with phenomena of development as well as empirical research practices. Instructor permission required. Mr. Valsiner/Offered periodically

282 SELF AND EMOTION/CAPSTONE SEMINAR

Focuses on the processes by which self-knowledge and self-awareness are developed and maintained. Other topics include the development of self-conceptions, self-consciousness, the understanding and control of one's own actions, self-blame, and the effects of actions on attitudes and feelings. Instructor permission required. Mr. Laird/Offered periodically

283 HISTORICAL BACKGROUND OF CONTEMPORARY PSYCHOLOGY/CAPSTONE SEMINAR

Includes an appreciation of the generative ideas and world hypotheses underlying contemporary psychological approaches and traces the earlier manifestations of these ideas and world hypotheses in intellectual history or history of ideas. Instructor permission required. Mr. Kaplan/Offered periodically

285 EMOTION AND INTERPERSONAL RELATIONSHIPS/CAPSTONE SEMINAR

What are emotions and how do they affect our behavior and our relationships? The course examines a number of theories about different emotions and our relations with others. Instructor permission required. Mr. deRivera/Offered every other year

290 MOTIVATION AND SELF-REGULATION/CAPSTONE SEMINAR

Explores the motivation of human behavior, i.e., what energizes and directs our actions. Examines theoretical and empirical works relevant to motivation, particularly those emphasizing an active organism. Also applies motivational theories to various areas, including education, work, sports, psychopathology, and psychotherapy. Ms. Grolnick/Offered periodically

296 DEVELOPMENT OF KNOWLEDGE/CAPSTONE SEMINAR

The issue of knowledge acquisition is approached from a neo-nativist perspective, i.e., on the assumption that humans have innate cognitive abilities to make sense of the world. Topics include: the nature of those abilities and how they shape learning in early childhood; the structure of physical, biological, and psychological knowledge throughout the life span, the structure of concepts, theories and mental models, parallel between individual development and history of science, and science and mathematics education. Psych 150 or 120 and permission of the instructor required. Ms. Wiser/Offered periodically

297 SEMINAR IN HEALTH PSYCHOLOGY/ CAPSTONE SEMINAR

Introduces the field of health psychology, covering such topics as stress and the psychosocial cases of illness, modification of problem health behaviors, issues in doctor-patient interaction, psychological effects of chronic illnesses, and the role of the psychologist as a consultant in health- care settings. Instructor permission required. Mr. Bibace/Offered periodically

298 SUPERVISED INTERNSHIP IN HEALTH PSYCHOLOGY/PRACTICUM

Supervised practical experience in a work setting relevant to a topic selected by the student from the subject matter of previous psychology courses related to health psychology, with associated bibliographical research. Requires a term paper integrating relevant literature and practicum observations. Enrollment must be approved by course coordinator in advance of registration. Mr. Bibace/Offered periodically

299 HONORS IN PSYCHOLOGY: SENIOR YEAR/TUTORIAL

Students carry out a research project under the direction of a faculty member. Department permission required. Staff/Offered every semester

299 SEC. 1 DIRECTED RESEARCH IN PSYCHOLOGY/TUTORIAL

Independent study for qualified students not in the Honors Program. Instructor permission required. Staff/Offered every semester

299 SEC. 2 DIRECTED READINGS IN PSYCHOLOGY/TUTORIAL

Independent study for qualified students not in the Honors Program. Instructor permission required. Staff/Offered every semester

300 DEVELOPMENTAL PSYCHOLOGY FORUM/GRADUATE SEMINAR

Devoted to the presentation and critique of different approaches to the individual and his/her ways of functioning in the world. The approaches considered may include: Piagetian, nativist, organismic-developmental, cultural/historical or may stem from interdisciplinary perspectives on a selected theme. The aim is to acquaint the participants with sympathetic expositions of several points of view and the application of these viewpoints to some selected topic of inquiry. Different topics are discussed in different years. Mr. Bamberg, Ms. Budwig, Ms. Falmagne, Mr. Kaplan, Ms. Uzgiris, Mr. Valsiner, Ms. Vinden, Ms. Wiser, and others/Offered every year

301 PROBLEM, THEORY, AND METHOD/GRADUATE SEMINAR

During the first semester, each faculty member meets once with the class to discuss his/her perspectives and research. Students prepare brief reports characterizing the links among each faculty member's perspective, research, problems, and methods. During semester two, students formulate proposals, and the methods and ethics of research are discussed. Staff/ Offered every semester

302 STATISTICAL METHODS/SEMINAR

The first semester is devoted to a review of the basic concepts of statistics, such as probability, statistical inference, sampling distribution, t-test, and regression, and to nonparametric statistics. The second semester introduces analysis of variance and experimental design.
Ms. Wiser, Mr. Stevens/Offered every year

303 ADULT ASSESSMENT/GRADUATE CLINICAL SEMINAR

Introduces measurement in clinical psychology (first semester) and intellectual and projective testing with adults (second semester). Mr. Addis, Ms. Crider, Mr. Cirillo/Offered every year

304 CHILD ASSESSMENT/GRADUATE CLINICAL SEMINAR

Focuses on the administration and interpretation of various assessment instruments for children. Includes intelligence and projective testing and diagnostic interviewing. Mr. Ciottone, Ms. Grolnick/Offered every year

306 QUALITATIVE/INTERPRETIVE METHODS/GRADUATE SEMINAR

Gives a theoretical overview and practical training in three aspects of what it means to take (and give) an "insider's" perspective. Ethnography - with special emphasis on participant observation; Conversation/Discourse Analysis; Interviewing - with special emphasis on narrative analysis. The three components will be dealt with in the form of exemplary readings, leading to three practical, i.e., empirical, projects. The course will also attempt to cover some basic language categories that are relevant in doing interpretive research.
Mr. Bamberg/Offered periodically

310 THEORIES OF PSYCHOTHERAPY/GRADUATE SEMINAR

Considers the concepts guiding various methods of psychotherapy. Staff/Offered every other year

311 PSYCHOPATHOLOGY/GRADUATE SEMINAR

Examines the difficulties of defining psychopathology and reviews the major diagnostic categories currently in use from a phenomenological, theoretical, and research perspective.
Ms. Azar/Offered every other year

312 THEORIES OF PERSONALITY/GRADUATE SEMINAR

Examines various theoretical approaches to personal consistency and individual differences. Staff/Offered every other year

313 CLINICAL DEVELOPMENTAL APPROACH TO PSYCHOPATHOLOGY/GRADUATE SEMINAR

Focuses on the origins and course of behavioral maladaption during the first two decades of life. Problems on assessing and treating psychological disorders are viewed from a developmental perspective, with connections being drawn between normal and abnormal growth processes. In particular, pathological symptomology is related to developmental issues such as early biological regulation, attachment, the family context, peer relations, intellectual development, self-control, sex-role differentiation, and personal efficacy. Selected topics include childhood depression, schizophrenia, eating disorders, borderline states, aggressive and other emotional disturbances, and attention problems. Mr. McHale/Offered periodically

314 THEORIES OF LANGUAGE DEVELOPMENT/GRADUATE SEMINAR

Beginning with an examination of the structure of language and the varied uses of language in human activity, the course critically examines major theories of how language is acquired by children. Approaches considered may include: nativist, cognitive interactionist, social interactionist, and functionalist. The aim of this seminar is to enable students to integrate current research in the area of language acquisition with developmental theorizing. Mr. Bamberg, Ms. Budwig/Offered periodically

315 IMITATION, INTERNALIZATION, IDENTIFICATION/GRADUATE SEMINAR

Discusses conceptions of processes involved in self-other construction in relation to significant others. The writings of J.M. Baldwin, J. Piaget, G.H. Mead, L. Vygotsky, R. Schafer, among others, are considered. Ms. Uzgiris/ Offered every other year

316 SENSORY PROCESSES AND PSYCHOPHYSICS/GRADUATE SEMINAR

Discusses psychophysical concepts and methods, including magnitude estimation and multidimensional scaling. Focuses on concepts and methods relevant to studies of taste, smell, and flavor. Mr. Stevens/Offered periodically

317 BEHAVIOR IN INFANCY/GRADUATE SEMINAR

Examines theoretical views about the infant in relation to current research, with the aim of relating functioning in infancy to later development. Different topics are chosen for an in-depth examination in different years. Ms. Uzgiris/Offered periodically

318 PIAGET'S THEORY/GRADUATE SEMINAR

Studies the basic concepts in Piaget's theory of development through intensive reading of his selected writings. The aim of the course is not familiarization with any particular topic studied by Piaget, but an in-depth examination of some of his theoretical ideas. Ms. Uzgiris/ Offered every other year

319 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY/GRADUATE SEMINAR

Focuses on the major areas of social psychology, including formation and change of attitudes and beliefs, social cognition, interpersonal attraction and prejudice, deviance, altruism, aggression, social dilemmas, group decision-making, and conformity. Mr. Laird/Offered periodically

320 ADVANCED TOPICS IN COMMUNICATION/GRADUATE SEMINAR

Critically examines various theories of human communication. Emphasizes theoretical and methodological issues involved in the study of how meaning is established in social interaction. Topics vary from year to year depending on participants' current research interests. Ms. Budwig, Mr. Bamberg/Offered periodically

321 TOPICS IN DISCOURSE ANALYSIS/GRADUATE SEMINAR

Explores the basic question of how coherence in the monologue (life stories, reports of particular events, route description, etc.) as well as multi-party interactions is achieved. The course then applies some of these issues to ongoing research projects. Mr. Bamberg/ Offered periodically

322 THE SCIENTIFIC STATUS OF PSYCHOTHERAPY/GRADUATE SEMINAR

Reviews data pertaining to the efficacy, effectiveness, and process of change in various forms of psychotherapy. Students should become critically informed of the scientific and political status of psychotherapy as a mental health intervention. Mr. Addis/Offered periodically

323 THEORY AND RESEARCH IN SOCIAL AND EMOTIONAL DEVELOPMENT/GRADUATE SEMINAR

Explores theories and research on the socialization and individuation (and their interaction) of the developing infant, child, and adolescent. Highlights contributions of the child, the family, the larger sociocultural context and their interplay. Topics covered include parent-child attachment, temperament, peer relations, prosocial behavior, emotion regulation, moral and ego development, and sex-role socialization. Emphasizes research methods and analysis in developmental research (e.g., modeling growth and change). Ms. Grolnick/Offered periodically

324 BEHAVIORISM AS PHILOSOPHY AND METHOD/GRADUATE SEMINAR

Looks at philosophical and methodological basis of contemporary behaviorism. Emphasizes correcting misperceptions of behaviorism and contrasting the approach with mentalistic and biological explanations of human activity. Mr. Addis/Offered periodically

325 CONCEPTS AND THEORIES IN CONCEPTUAL DEVELOPMENT/GRADUATE SEMINAR

Examines the development of children's knowledge about the physical, biological, and social worlds from a neo-nativist perspective (innate constraints and domain-specificity). Topics include the structure and content of infants' knowledge, processes of knowledge acquisition, relations between individual and cultural knowledge. Related topics include: evolutionary perspectives on knowledge development, concept theory change in history of science, conceptual change in the science classroom, mental models. Prerequisite: permission of instructor. Ms. Wiser/Offered periodically

326 FEMINIST PERSPECTIVES ON SELF, MIND, IDENTITY, AND DEVELOPMENT/GRADUATE SEMINAR

Surveys several approaches that examine how self, mind, and identity are constituted and develop in societal context, with particular focus on gender as one category of analysis, both discursive and material. Selected works illustrating these different perspectives as well as some of their current debates will be studied. Prerequisite: permission. Ms. Falmagne/Offered periodically

328 TOPICS IN CONCEPTUAL DEVELOPMENT/GRADUATE SEMINAR

Reviews recent advances in cognitive science related to conceptual development. Topics include various aspects of the neo-nativist approach to knowledge development (e.g., nature of innate abilities, modularity, children's theories in different domains), the development of mental models and analogical reasoning, some neo-Piagetian theories, connectionist models, Dynamic System Theory, evolutionary epistemology, cognitive approaches to history of science, and to science and mathematics education. Ms. Wiser/Offered periodically

340 EMOTION AND INTERPERSONAL RELATIONS/GRADUATE SEMINAR

Uses our knowledge of various emotional transformations (e.g., changes in self-boundary) to develop a precise language for the description of interpersonal phenomena such as merger-separation, dynamics, identification, and the dynamics of family constellations.
Mr. deRivera/Offered periodically

341 LOGIC, LANGUAGE, AND MIND/GRADUATE SEMINAR

Examines the relations between logic and mind, and the role of language in logical knowledge, drawing from cognitive, developmental, linguistic, and philosophical works. Examines analyses of the relation between logic and language in philosophy and semantics, along with developmental discussions of the relation between language and thought as these inform our more specific questions about language and mind.
Ms. Joffe Falmagne/Offered periodically

347 LANGUAGE AND HUMAN DEVELOPMENT/GRADUATE SEMINAR

Introduces students to central debates concerning the relationship between language, thought, and culture. Draws upon readings from a variety of disciplines including psychology, anthropology, and linguistics that consider language as a formal system, language and context, and communicative practices. Also examines how developmental psychologists have thought about the interface between language, thought, and culture. Students have the opportunity to relate ongoing interests to themes from the seminar. Ms. Budwig/Offered periodically

380 PSYCHOTHERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Supervised experiences in psychotherapy.
Staff/Offered every year

381 FAMILY THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Family and couple therapy and group parent training. For third-year clinical students. Ms. Azar/Offered every semester

382 ADVANCED THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Mr. Bibace/Offered periodically

383 COGNITIVE AND BEHAVIORAL ASSESSMENT/GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

384 CONSULTING PRACTICUM/GRADUATE CLINICAL PRACTICUM

Mr. Bibace/Offered periodically

385 CHILD THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Ms. Grolnick, Mr. Ciottone/Offered every year

386 NEUROPSYCHOLOGY ASSESSMENT/GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

387 ETHICS IN CLINICAL PSYCHOLOGY/GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

388 INTERVIEWING PRACTICUM/GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

389 CLINICAL WORKSHOP/GRADUATE CLINICAL SEMINAR

For all clinical students in residence. Clinical Staff/Offered every semester

399 SEC. 1 RESEARCH IN PSYCHOLOGY/TUTORIAL

Direction of individual students in their research. Staff/Offered every semester

399 SEC. 2 READINGS IN PSYCHOLOGY/TUTORIAL

Critical analysis of literature in individual research. Staff/Offered every semester

399 SEC. 9 INTERNSHIP IN PSYCHOLOGY/GRADUATE CLINICAL PRACTICUM

SOCIOLOGY

Program Faculty

Robert J.S. Ross, Ph.D., *chair: urban studies, political sociology, political economy, social policy*
Patricia M. Ewick, Ph.D.: *research methods, gender, law, deviance*
Eric D. Gordy, Ph.D.: *sociological theory, sociology of culture, media and communication, political and historical sociology, Balkan societies*
Bruce London, Ph.D.: *technology and society, community, sociology of the Third World, social demography*
Deborah M. Merrill, Ph.D.: *research methods, family, aging, medical sociology, social demography*
Shelly Tenenbaum, Ph.D.: *Jewish studies, race/ethnicity, social stratification, gender*

Emeriti Faculty

Ruth H. Jacobs, Ph.D.
Sidney M. Peck, Ph.D.

Undergraduate Program

The American sociologist C. Wright Mills described the perspective of sociology as the "sociological imagination." He maintained that this point of view enables individuals to see how their personal lives are shaped by larger social forces. In short, Mills argued, we cannot fully understand ourselves without understanding the society in which we live. At Clark, the study of sociology is committed to developing such an imaginative capacity in students.

Through the examination of social processes, such as social stratification, social movements and social change, and through an investigation of diverse social institutions, such as the law, the family, medicine, and religion, students acquire the conceptual and analytical tools to enhance both their understanding of their own lives and the world in which they live, and the ability to act with reason and freedom. As a social science faculty, we are concerned about the human situation and the relevance of our scholarship to societal issues and community problems, as well as to our individual lives. We hope to understand the structure and dynamics of human society, on a

232 POPULATION, ENVIRONMENT, AND DEVELOPMENT/VARIABLE FORMAT

Studies the statistical description and analysis of human populations. Focuses on relationships between and among (a) social, cultural, political, and economic forces, and (b) population structures, processes, and characteristics. Such demographic factors contribute to the understanding of social issues, such as the aging of the population, the changing status of women, rapid world urbanization, and Third World economic problems. Mr. London, Ms. Merrill/ Offered periodically

235 SOCIOLOGY OF TECHNOLOGY/LECTURE, DISCUSSION

Analyzes the implications of technological change for society and the effect of social processes on technological development. Specific topics include: the differing utopian, dystopian, and Marxist views of technology and society; technology and the environment; the notion of "the imperatives of technology" and the rise of corporate capitalism; and computers and society. Mr. London, Staff/Offered periodically

239 AGING AND SOCIETY/LECTURE, DISCUSSION

Focuses on the process of aging and older people in our society. Attention is given to the diversity of the aged and the impact of social structures on the aging process. (Formerly Social Gerontology) Ms. Merrill/Offered every year

241 SOCIOLOGY OF MEDICINE/LECTURE, DISCUSSION

Examines the role of health care professionals and the health care industry, as well as health and illness as social phenomena. The course also addresses problems in the health care system at the national level and reviews potential solutions to the mounting crisis in the provision of health services. Ms. Merrill/Offered every year

243 POLITICAL SOCIOLOGY/VARIABLE FORMAT

Examines various dimensions of political power in societies. Considers various definitions of power and the state. Empirical studies focus on 1) political communities and political inequalities, 2) states, bureaucracies, and "pressure," 3) political culture and political communication, and 4) revolution. Emphasizes historical, comparative, and international dimensions. Mrs. Gordy and Ross/Offered every year

244 THE COMMUNITY/LECTURE, DISCUSSION

An analysis of one of the most enduring ideas at the heart of the discipline of sociology: the idea of community. How do we define "community"? What is the meaning of community for individuals and groups? How has the nature of community changed over time? And what are the central concepts, issues, theories, and methods used by sociologists in the writing of community studies? Mr. London/Offered every year

246 SOCIAL POLICY/VARIABLE FORMAT

Introduces the field of social policy. Each semester focuses on a specific theme. Past themes include poverty, urban planning and social policy, and social consequences of industrial change. Mr. Ross/Offered every other year

247 CITIES AND SUBURBS/VARIABLE FORMAT

Introduces urban sociology. Examines the structure and development of American metropolitan areas and community power, with special attention to changing functions of cities and suburbs. Examines different ways of life in cities and suburbs. Mr. Ross/Offered every year

248 GLOBAL CAPITALISM/SEMINAR

Examines processes of economic and social development. Focuses on changes in the structure of industrial regions of the advanced capitalist countries, and changes in the structure of developing and more peripheral regions. The conceptual framework is that of a global capitalist system undergoing significant transformation in the deployment of labor and capital. Mr. Ross/Offered periodically

249 THE SOCIOLOGY OF DEVELOPMENT AND UNDERDEVELOPMENT/LECTURE, DISCUSSION

Examines and analyzes the transformation of post-colonial, "Third World" societies undergoing capitalist or socialist development. The course discusses theories of development in a social, economic, and demographic context. It also explores the international division of labor, urbanization, and basic needs provision. Mr. London, Staff/Offered every other year

250 CRIMINOLOGY/VARIABLE FORMAT

Reviews the nature of crime in society, theories about victims of crime, theories about why people commit illegal acts, and the types of crime that occur in American society. Staff/Offered occasionally

251 MEDIA AND SOCIETY/LECTURE, DISCUSSION

Analyzes the development, history, and structure of media of mass communication. Examines research on a variety of contemporary issues in the sociology of media. A variety of theoretical and methodological approaches is presented to questions of analysis and effects of communication media. Mr. Gordy/Offered every year

252 RACE AND AMERICAN SOCIETY/LECTURE, DISCUSSION

Focuses on the political, economic, and social lives of Native Americans, Latinos, African Americans, and Asian Americans. Topics discussed include racism, the civil rights movement, gender, class, popular culture, and public policies. A central assumption of this course is that we must turn to the historical experience to understand contemporary race relations. Ms. Tenenbaum/Offered every year

255 THE FAMILY/LECTURE, DISCUSSION

Examines the assumed collapse of the American family and the causes of this collapse. Also considers challenges to the new family, such as dual-career couples and the resulting division of labor in the home. Working class, African American, and homeless families are also discussed. Ms. Merrill/ Offered every year

256 CLASS, STATUS, AND POWER/VARIABLE FORMAT

Analyzes the nature, dynamics, and historical development of social inequality. The economic and political power of the upper class, social mobility, the process of deindustrialization, feminization of poverty, and the intersection of race and class are studied. Ms. Tenenbaum, Mr. Ross, Mr. London/Offered every semester. Required for the major. Soc 210 Classical Theory is highly recommended prerequisite.

257 CITIES IN GLOBAL PERSPECTIVE/VARIABLE FORMAT

Based on four dimensions of comparison: historical; cross-national within advanced capitalism; across systems of social relations (i.e., capitalist urbanization compared with socialist urbanization); and a contrast between the processes and structures of urbanization in the First and Third Worlds. Mr. Ross/Offered occasionally

258 WOMEN IN JEWISH CULTURE/LECTURE DISCUSSION

Seeks to uncover the experiences of Jewish women and uses gender analysis to enrich our understanding of Jewish life. Raises questions about the status of women in texts, rituals, and communal practices from the biblical period to the present. Ms. Tenenbaum/Offered every other year

259 SOCIOLOGY OF ORGANIZATION/LECTURE, DISCUSSION

Examines the theory and practice of organizations. Students examine major concepts in the historical development of modern organizations (e.g., bureaucracy) and apply their learning to the investigation of contemporary problems and issues of complex organizations. Ms. Ewick/Offered every year

260 FAMILY ISSUES IN AN AGING SOCIETY/LECTURE, DISCUSSION

Examines how the aging of our society has affected family life for both elders and younger generations. Particular attention is paid to the topic of family caregiving. Emphasizes a life-course perspective and gives attention to the impact of mid-life family events on later life relationships. Ms. Merrill/Offered every other year

262 SOCIOLOGY OF LAW/VARIABLE FORMAT

Examines the relationship between law and other aspects of social life, especially stratification, organization, and culture. This course compares law with other methods of social control, and analyzes the three functions of law: deterrence, conflict resolution, and social engineering. Ms. Ewick/Offered periodically

263 DEVIANCE/VARIABLE FORMAT

Why are some behaviors, differences, and people stigmatized and considered deviant while others are not? This course examines theories of social deviance that offer answers to this and to related questions such as: how and why are behaviors designated as deviant; how do individuals enter a deviant lifestyle; and how do various social statuses, such as sex, affect the incidence, type, and responses to deviant acts. Ms. Ewick/Offered periodically

265 SOCIAL MOVEMENTS/VARIABLE FORMAT

Modern American movements (feminist, civil rights, etc.) are used as examples for discussion of social movements. Problems of recruitment, organization, and ideology are analyzed. The form of the course depends on the number of students registering. Mr. Ross, Staff/Offered periodically

275 RELIGION AND SOCIETY/VARIABLE FORMAT

The interaction between religion and contemporary society (particularly in the U.S.) is characterized by conflict and controversy concerning the unique relationship between religious organizations and "the State." This course analyzes the effect of religious organizations on the culture, structure, and the policies of contemporary society by exploring, historically and cross-culturally, the influence of religion on social existence. Staff/Offered periodically

285 SPECIAL TOPICS IN PEACE STUDIES

See Peace Studies 285. Staff/Offered periodically

297 TOPICS IN SOCIOLOGICAL THEORY/ VARIABLE FORMAT

For students who have already taken classical or contemporary theory, and for students who want to make an in-depth study of a particular theorist but have not yet made such a study. Mr. Ross, Staff/Offered periodically

298 THESIS STUDIES

Independent study submitted for honors consideration for senior sociology majors. Students should sign up with the faculty member whose areas of interests are most suited to their own. The emphasis is on independent research undertaken with faculty guidance and supervision. Generally requires two credits in each semester of the student's senior year and culminates in a thesis submitted for honors consideration. Staff/Offered every year

299 SEC.1 INTERNSHIP SEMINAR

Focus changes each year depending on faculty interest. Foci include gender, community organizing, and aging.

299 SEC. 9 INTERNSHIPS IN SOCIOLOGY

Supervised field training in community and organized settings is available. Internship is the equivalent of one to four full courses in sociology. Variable credit. Staff/Offered every semester

VISUAL AND PERFORMING ARTS

Linda Dusman, Ph.D., chair: *composition, theories of performance and music reception*

Visual and Performing Arts is composed of individual academic programs in art history, studio art, music, screen studies, and theater arts. Whether students prefer to study the history, criticism, philosophy, and theory of the arts or to engage in the creative activity of studio work, composition, or performance, there are courses, concentrations, minors, specializations, and majors available. A major in a given area can be the core for a preprofessional program; or, the student may cross traditional disciplinary lines—by double majoring, for instance, or by designing a major or combined major that includes two or more areas of study. Students, with a program director, may develop a four-or five-course sequence as a minor or an area of specialization. Majors and nonmajors are welcome to attend the many art exhibitions, film presentations, and musical, theatrical, and dance performances.

The department of Visual and Performing Arts is part of the Higgins School of Humanities.

Because art reflects the trend of thought and the impact of events of its time, it relates to many other areas of study—history, philosophy, and psychology. The study of art thus enhances one's understanding and appreciation of other disciplines. For students interested in the arts, humanities, or social and natural sciences, the study of art can provide both majors and nonmajors with an especially enriching part of liberal arts education. Courses in art offer opportunities to develop critical skills, acquire resources for visual thinking and communication, and engage in personal creative expression. For both future art scholars and professionals, Clark's art programs provide a solid foundation that will serve them well in their graduate studies or careers.

ART HISTORY AND CRITICISM

Program Faculty

Bonnie L. Grad, Ph.D.: *Modern art*
Gauvin A. Bailey, Ph.D.: *Renaissance and Baroque art; Asian Art; Latin American Art*
Rhys F. Townsend, Ph.D.: *Ancient art and archaeology, program director*

Part-Time Faculty

Jean Borgatti, Ph.D.: *African, Native American, and Oceanic art*

Adjunct Faculty

Paul Burke, Ph.D.
John Conron, Ph. D.

Emeritus

Samuel P. Cowardin III, Ph.D.

Undergraduate Program

The Art History major focuses on the visual arts and the social, cultural, and historical context in which art is created. Majors may specialize in Ancient, Renaissance and Baroque, and Modern art history, or other areas. For those considering teaching, museum and gallery work, arts conservation, or arts management, the major is designed to meet the student's needs and includes an internship at an appropriate institution.

The Art History Major

A total of 16 courses are required, 10 of which are art history courses.

Requirements:

1. **Art History Courses**
   a. 010: From the Stone Age to Our Age (or equivalent course or superior advanced placement performance)
   b. Four courses specializing in a single area (e.g., Ancient, Renaissance/Baroque, Modern). At least two of these courses must be at the 200 level, including 290, Senior Thesis in Art History
   c. Four courses outside the area of specialization, at least one of which must be at the 200 level
   d. 289: Supervised Internship/Practicum
2. **Related Courses**
   Four courses at the 100 level or above outside the visual arts but related to the student's area of specialization (e.g., appropriate language courses, or courses in history, literature, music, philosophy) and selected on the basis of consultation with the student's advisor
3. **Studio Courses**
   Any two courses in studio art

Double and Combined Majors

Because of its interdisciplinary nature, students may wish to double major in art history and another discipline. In such cases, the number or required courses for the major is reduced to 11.

Requirements:

1. **Art History Courses**
   a. 010: From the Stone Age to Our Age (or equivalent course or superior advanced placement performance)
   b. Three courses specializing in a single area (e.g., Ancient, Renaissance/Baroque, Modern). Two of these courses must be at the 200 level, including 290, Senior Thesis in Art History
   c. Three courses outside the area of specialization, one of which must be at the 200 level
   d. 289: Supervised Internship/Practicum
2. **Related Courses**
   Two courses at the 100 level or above, outside the visual arts, but related to the student's area of specialization (e.g., appropriate language courses, or courses in history, literature, music, etc.) and selected with the student's advisor
3. **Studio Courses**
   Any one course in Studio Art

A combined major in art history and studio art, requiring a minimum of eight art history courses, may be developed with the art history and studio art program directors.

Honors in Art History

Requires the 16 courses for the art history major, including the senior honors thesis (299, section 8). The honors student will register for 299, section 8, Honors in Art History, rather than 290, Senior Thesis in Art History. Students wishing to take Honors in Art History should identify an area of interest, choose an appropriate advisor, and apply for eligibility to the Art History faculty before the end of the junior year. See the course description under Art History 299, section 8, Honors in Art History, for details.

Nonmajors

All courses and seminars in this program are open to nonmajors. Students whose major lies in another discipline may minor in art history. Six courses are required for the art history minor.

The Art History Minor

Requirements:

1. 010: From the Stone Age to Our Age
2. Five additional courses, with no more than two in one area of specialization (i.e., Ancient, Renaissance/Baroque, Modern) and at least one at the 200 level.

Courses

010 FROM THE STONE AGE TO OUR AGE: MONUMENTS AND MASTERPIECES OF WESTERN ART/LECTURE, DISCUSSION

Begins with a reach back in time to the dawn of history 20,000 years ago when the earliest creators in the western world painted powerful images of animals on walls located in the eerie, dank depths of cave interiors. This startling act marked the beginning of communication through visual images. We will move chronologically through history, exploring the major monuments and masterpieces of painting, sculpture, and architecture and the cultures which produced them. By focusing primarily, although not exclusively, on select key monuments—the Pyramids, the Parthenon, the Pantheon—and on the masterpieces of major artists—Raphael, Rembrandt, Renoir, Rothko (among others)—from prehistoric times to our own computer age, we will gain an understanding of visual culture and of the needs and aspirations that are expressed. Staff/Offered every semester

105 THE AEGEAN WORLD/LECTURE, DISCUSSION

An introduction to the architecture, sculpture, and painting of Egypt, Mesopotamia, and the Aegean during the Bronze Age. The course covers the Old and New Kingdoms of Egypt; the great dynasties of Sumer, Akkad, and Babylon; and the cultures of the Aegean islands, Crete, and mainland Greece. Examines artistic forms and traditions of each region in order to shed light on the individual religious and social contexts in which they evolved. Highlights the archaeologists whose discoveries have illuminated the history and artifacts of these lands. Field trips to area museums. Mr. Townsend/Offered every other year

106 INTRODUCTION TO ARCHAEOLOGY/ LECTURE, DISCUSSION

Concentrates on the Mediterranean region, tracing the history and methods of archaeology—emphasizing its unique combination of the sciences and the humanities—from its first steps to its technologically advanced state today. Selected case studies will demonstrate how archaeology has illuminated the ancient world. Also examines the newly developed field of underwater archaeology. Mr. Townsend/ Offered every other year

109 CLASSICAL MYTH AND THE GREEK IDEAL IN ART/LECTURE, DISCUSSION

Investigates selected classical myths and the concept of the "Greek ideal" as expressed in art, both in classical Greece and Rome and in various later periods, including the 20th century. Approaches the myths from the standpoint of origin and significance, changing modes of representation, and manipulation for political purposes. The "Greek ideal" is also examined both as it originally developed and as it was conceived in subsequent ages. The course also considers the changing attitudes towards the classical world and the significance of the classical tradition in art and history. Field trips to area museums. Mr. Townsend/Offered every other year

110 ANCIENT GREEK ART/LECTURE, DISCUSSION

This intensive survey reviews Greek art from the collapse of the Minoan-Mycenaean world in the 12th century B.C. to the close of the Hellenistic period in the first century B.C. Geographically, it reaches from Greece itself, westward to the Greek cities of South Italy and Sicily, and eastward to the Hellenized lands of Asia Minor, Egypt, and the Near East. The course discusses the concept of artistic originality and stylistic development, the relationship between art and politics, and the contribution of Greek art to the history of the visual arts in the Western world. Field trips to the Worcester Art Museum and the Boston Museum of Fine Arts. Mr. Townsend/Offered every other year

111 ROMAN ART AND ARCHITECTURE/LECTURE, DISCUSSION

See Ancient Civilizations 111. Staff/Offered every other year

114 ANCIENT CITIES AND SANCTUARIES/ LECTURE, DISCUSSION

Introduces the great urban and religious centers of the ancient world. The course examines the concept of the city as it first evolved in the Near East and as it developed in classical Greece and Rome. The course emphasizes both the design and structure of urban spaces and the factors affecting town planning. Discusses ancient sanctuaries not only as areas of religious worship, but also as centers of cultural activity involving theater, art, athletics, and politics. Cities and sanctuaries are viewed in their historical setting as part of the larger civilizations which nurtured them. Mr. Townsend/Offered every other year

118 ART IN THE AGE OF ALEXANDER THE GREAT/LECTURE, DISCUSSION

By his death in 323 B.C., at age 33, Alexander the Great had conquered most of the known world, his empire stretching from Greece to the Indus River Valley of India. In the process, he transformed this region into a polyglot, multi-cultural mix that has been compared to the global village in which we live today. This course examines the life and times of Alexander and his followers through the record of the material culture they left behind: architecture, sculpture, painting, gold, coins, jewelry, and everyday artifacts. It specifically examines how culture is shaped by such material goods, and uses an historical perspective to gain insight to the ever-changing profile of our society today. Trips to area museums. Mr. Townsend/Offered every other year

124 ITALIAN ART FROM GIOTTO TO BOTTICELLI/LECTURE, DISCUSSION

Examines one of the most crucial periods in Western art, the Early Renaissance in Italy. Investigates painting, sculpture, and architecture in their cultural and historical contexts from the trecento (1300s) to the late quattrocento (1400s), with a focus on Tuscany and its flourishing capital, Florence. Explores the movement away from Byzantine and Gothic art toward a new, uniquely Italian style emphasizing humanity, realism, and science. Assesses how humanist studies, republican politics, monastic reform, and the emergence of a wealthy mercantile class affected artistic style and theory. Considers artists' growing self-awareness as professionals contributing to contemporary intellectual developments and the ideology of genius. Artists highlighted in this course include Giotto, Brunelleschi, Donatello, Ghiberti, Fra Angelico, Piero della Francesca, and Botticelli. Field trips to area museums. Mr. Bailey/Offered every other year

125 ART IN THE AGE OF MICHELANGELO/ LECTURE, DISCUSSION

Focuses on the art of the 1500s in Italy, an era comprising the High Renaissance and Mannerism, perhaps the single most influential period in Western art after classical times. Investigates painting, sculpture, and architecture in the major Italian cultural centers of Florence, Rome, Milan, Parma, Mantua, and Venice. Considers questions of style, influence, patronage, art theory, and scholarly and religious developments. Highlights the work of Michelangelo, including the recently restored Sistine Chapel frescoes, the Medici Tombs, the *David* and the *Pietà*. Also considers the work of Leonardo da Vinci, Raphael, Correggio, Giorgione, and Titian, and their relationship to Michelangelo and his legacy. Looks at the rise of papal Rome and the building of St. Peter's basilica and the Vatican palaces. Mr. Bailey/ Offered every other year

131 BAROQUE ART IN THE AGE OF BERNINI/LECTURE, DISCUSSION

Considers Italian art and architecture from around 1580 to 1680, the age known as the Baroque. An era of astonishing artistic activity, it was marked by lavish patronage by popes, cardinals, and princes, centering on the cosmopolitan capital of Rome. This period was characterized by fundamental changes in society, including the birth of the Catholic church as a concept, new and revolutionary scientific discoveries, a new global awareness, and the growth of political absolutism. Explores how these developments informed the style, iconography, and patronage of art. Highlights Italian artists Caravaggio, Bernini, Borromini, and Pietro da Cortona, as well as foreigners working in Italy such as Poussin and Claude Lorrain. Topics considered include the rise of landscape painting, still life, and genre painting, as well as the concept of the Baroque unity of the arts. Field trips to area museums. Mr. Bailey/Offered every other year

140 MODERN ART: 19TH CENTURY/LECTURE, DISCUSSION

Examines neoclassicism, romanticism, realism, and impressionism. Studies the development of landscape painting in England and France, in relation to the rise of urbanization and industrialization, and the origins of an "avant-garde." Ms. Grad/Offered every other year

141 IMPRESSIONISM/LECTURE, DISCUSSION

Traces the development of impressionism over three decades: from the early works of Manet to the last Impressionist Exhibition in 1886. We examine in great depth both the stylistic development of individual artists—Manet, Monet, Renoir, Degas, Cezanne, Cassatt, and Morisot—and the intense cross-fertilization of ideas between and amongst these artists. In addition, the course examines the academic paintings of the Jonas and Susan Clark Collection to illustrate what kind of art the impressionists were reacting against as well as the very art that was popular when impressionism failed to win critical acceptance. Ms. Grad/Offered every other year

142 MODERNISM/LECTURE, DISCUSSION

Begins in 1886, the year in which the 20th century arrived. After a brief survey of post impressionism, we trace the blossoming of the modern imagination in Fauvism, Cubism, German expressionism, Dadaism, and surrealism.
Ms. Grad/Offered every other year

143 ART FROM 1945 TO 1965/LECTURE, DISCUSSION

Surveys the major movements of contemporary American and European art, including abstract expressionism, pop art, and earth art. Explores the increasing importance of the commercial environment, popular culture, and technology in the art of the sixties. Ms. Grad/Offered every other year

144 MODERN LANDSCAPE ART: 1750-1970/LECTURE, DISCUSSION

Traces the development of landscape painting in Europe and America from 1750 through the recent past. We examine historical and social factors including urbanization and the birth of modern town planning, sanitation, water supply, and park design; industrialization and technology; the rise of tourism; and the "commercialization" of the landscape. Ms. Grad/Offered periodically

145 THE ART OF TODAY: 1960 TO THE PRESENT/LECTURE, DISCUSSION

Examines the evolution of the current art scene and contemporary artists. Considers minimalism, conceptual art, performance art, earth works and environments, video art, installation art, neo-expressionism, and new-image painting. Students may analyze the critical themes represented in the shift from modernism to a postmodern aesthetic. Staff/Offered periodically

147 ART CRITICISM/LECTURE, DISCUSSION

Surveys the writings of selected American and English art critics active from 1945 to the present. Students become familiar with a variety of methodologies, including formalism, Marxism, and feminism. Critics include Clement Greenberg, Hilton Kramer, Lucy Lippard, T.J. Clark, and John Berger. Readings vary from year to year. Several field trips to Boston area galleries and museums. Writing intensive. 143, Art From 1945 to 1965, is recommended but not required. Ms. Grad/Offered every other year

148 LANDSCAPE AS REVELATION: THE ART OF GEORGIA O'KEEFFE/LECTURE, DISCUSSION

Examines broad cultural and geographic issues by focusing on the work of Georgia O'Keeffe. Like many 20th-century modernists, she shunned the technological urban world to search for primordial landscapes. From her experiences of the southwestern desert, her readings of Thoreau, and her study of Eastern religions, she forged a spiritual art with moral import. Readings include Thoreau, Emerson, Paul Tillich, Mabel Dodge Luhan, and Mircea Eliade. Ms. Grad/Offered every year

155 ART OF AFRICA, OCEANIA, AND SOUTHWESTERN NATIVE AMERICA/ LECTURE, DISCUSSION

Focuses on the art of the Yoruba of Southwestern Nigeria, the Northwest Coast Native Americans, and New Guinea, and considers the art forms, cultural settings, and distinctive aesthetic in non-western culture. Students will be expected to make aesthetic and stylistic judgments concerning selected original material. Ms. Borgatti/Offered every third term

156 ARTS OF BLACK AFRICA/LECTURE, DISCUSSION

Introduces art in the Western Sudan and Guinea Coast, the Niger Delta and Equatorial Forest, the Southern Savanna, and southern and east African fringe. Emphasizes formal, conceptual, and historical links between the cultures and art forms. Ms. Borgatti/Offered every third term

157 THE ARTS OF NORTH AMERICAN NATIVE PEOPLES/LECTURE, DISCUSSION

Examines the arts of the native peoples of North America, i.e., the arts of Woodland, Southeastern U.S., Plains, Pueblo, Navajo, California, and Northwest Coast Indian groups as well as that of Alaskan and Canadian Eskimos. Studies the traditions from the contact period (1500-1900), and pre-contact traditions known from the archaeological record. Ms. Borgatti/Offered every third term

159 LATIN-AMERICAN ART/LECTURE, DISCUSSION

Surveys the art and architecture of Latin America, ranging from Argentina to the U.S., from the pre-Columbian period to the present. Begins with an exploration of the art of Mesoamerica and the Andes before the arrival of the Europeans, including the Maya, Olmecs, Aztecs, and Inka. Explores the cultural convergence that resulted from the conquest in the 16th century, focusing on the role of Amerindian artists and traditions in the formation of early Colonial culture. Traces the development of the colonial arts, considering the role of civil and religious patronage, the rise of the art guilds, the international makeup of European cultures in the Americas, and the relationship with the arts of Spain and Portugal. Considers the rise of nationalism in the 17th and 18th centuries and its effect on the arts, including the revival of Amerindian forms by the independence movement in regions that would later become Peru and Mexico. Explores the development of the arts from independence from Spain and Portugal in the early 19th century to the present, including a consideration of Chicano art in the United States. Field trips to area museums. Mr. Bailey/ Offered every other year

160 THE ARTS OF ASIA/LECTURE, DISCUSSION

The 21st century has been called the "Asian Century" in anticipation of the leading role that Asia will play in the world's economic, policial, and cultural life. This course journeys through the history of the art and architecture of the most important civilizations in the Far East: China, Japan, and Korea. Begins with China, whose arts tradition developed in isolation for over a millennium before exerting a profound influence on the nascent visual arts cultures of Japan and Korea about 2,000 years ago. Explores how those two regions developed unique art forms that were repeatedly still affected by new waves of influence from China. Considers ancient bronzes, scroll and screen painting, religious sculpture, ceramics and decorative arts, and architecture. Examines the function of these arts in society; the relationship between art and the great religions and philosophies of Daoism, Shinto, Confucianism, and Buddhism (especially Chan, or Zen Buddhism); the diversity of art patronage (emperors, warlords, monks, and literati); and the relationship of art to the past. Field trips to area museums. Mr. Bailey/ Offered every other year

161 THE ARTS OF ISLAM/LECTURE, DISCUSSION

Islamic peoples make up one third of the world's population, historically embracing regions as diverse as Spain, North Africa, the Middle East, India, and Central Asia. Their culture is dynamic and diverse, and intimately related to neighboring civilizations in Europe, the Far East, and Sub-Saharan Africa. Examines the art and architecture of Islam from the lifetime of the Prophet Muhammad (d. 632) to the present. Considers the development of the mosque and madrasa (religious college), miniature and mural painting, ceramics, ivory, metalwork, textiles, and other arts. Explores the religious disinclination toward figural art and the growth of the "arabesque," or geometrical/floral patterns. Also examines the flourishing figural tradition that existed in non-religious art. Monuments considered include the Alhambra in Granada, the Great Mosque of Damascus, the Dome of the Rock in Jerusalem, and the Taj Mahal. Field trips to area museums. Mr. Bailey/Offered every other year

215 THE TEMPLE BUILDERS: ARCHITECTURE IN ANCIENT GREECE/SEMINAR

Traces the evolution of monumental architecture in Greece from its origins in the Geometric period through its development in Archaic, Classical, and Hellenistic times. Emphasizes the integration of craftsmanship, or techne, with elements of design in the Doric, Ionic, and Corinthian orders. Discusses the relationship between architect and patron, the social role of architecture, and its political impact, as well as the problems of modern investigation and reconstruction of ancient buildings. Mr. Townsend/Offered periodically

216 ARCHITECTURE AND DEMOCRACY/ SEMINAR

This seminar will explore the relationship between the built environment and civic ideology in ancient Athens and 20th-century America. "Built environment" is structures in, through, and around which a society functions and include both private and public buildings and spaces. "Civic ideology" is ideas that embody the collective beliefs and aspirations of the citizen body. In particular we will be interested in the relationship between the individual citizen and the state in ancient Athens and 20th-century United states and the means by which architecture acts to construct that relationship. Area field trips. Mr. Townsend/ Offered every other year

219 SPECIAL TOPICS: ANCIENT ART/SEMINAR

Introduces specific issues and approaches in the study of ancient art. The course develops the student's research, oral presentation, and writing skills through intensive study that is not possible in a survey course. While the seminar is designed for majors, qualified students from other disciplines are welcome. Course may be taken for credit more than once. Mr. Townsend/Offered periodically

230 CARAVAGGIO/SEMINAR

Focuses on the work of one of the best known artists of any period, the painter Michelangelo Merisi, or Caravaggio (1573-1610). Although he died a young man in 1610, he is often considered the most important painter of the 17th century. Explores Caravaggio's intense naturalism and the controversy it caused, his sense of drama and supernatural light, and the role of his personality in works of art. Surveys his life in Rome, Naples, Malta, and Sicily, considering his religious paintings, genre scenes, and still lives. Considers the contradictory aspects of his character: his sexual ambivalence, his criminal violence, and his intense spiritual devotion. Explores his artistic legacy in Italy and abroad. Readings include art-historical scholarship, history, and original documents from the period. Field trips to area museums and to the exhibition *Saints and Sinners: Art and Culture in Caravaggio's Italy* at the McMullen Museum of Art at Boston College. Mr. Bailey/ Offered periodically

232 CONVERGING CULTURES IN THE AGE OF DISCOVERY/SEMINAR

A critical assessment of the notion of hybrid art, focusing on the period of European "discovery" of non-European civilizations from the 16th-18th centuries. Explores the impact of European Renaissance and Baroque art in a global context, including the Far East, Southeast Asia, India, and the Americas. This age of global encounter involved intimate contact between the widest spectrum of peoples, representing different races and religions, as well as political, social, economic, and cultural systems. Considers the role of missionaries, merchants, and colonial powers in bringing European art to the non-European world, and the differing degrees of contact/conquest that existed between them. Primary focus is on the reaction of non-European cultures such as the Chinese and Nahua (Aztecs) to the new styles and iconographies from Europe, and the perpetuation of indigenous symbols, styles, and ideas in the art produced after contact with Europeans. Evaluates the new art styles that were developed as the cultures began to merge, and questions whether transcendent styles or aesthetics emerge from the prolonged interaction of cultures. Mr. Bailey/Offered periodically

239 SPECIAL TOPICS: RENAISSANCE AND BAROQUE ART/SEMINAR

Introduces specific problems in Renaissance and Baroque art and focuses on student research, oral presentation, and writing skills. Qualified students from other disciplines are welcome. Mr. Bailey/Offered periodically

248 WOMEN AND ART/SEMINAR AND PRACTICUM

Explores the social and cultural construction of femininity (and masculinity) and the ways in which these are expressed in art and popular culture. Ms. Grad/Offered every other year

249 SPECIAL TOPICS: MODERN ART/SEMINAR

Introduces specific topics in the study of modern art. Research and writing intensive. Qualified students from other disciplines are welcome. Ms. Grad/Offered periodically

250 THE JONAS AND SUSAN CLARK COLLECTION/SEMINAR

Upper-level multidisciplinary course which examines in detail the American landscape and European genre paintings of this small and unique collection. Ms. Grad/Offered every other year

265 INDIA UNDER THE GREAT MUGHALS/SEMINAR

Explores one of the most lavish and creative cultural renaissances in world history. Between the 16th and 19th centuries, most of India belonged to the Great Mughals, emperors whose names remain famous throughout the world: including Babur, Akbar, and Shah Jahan. Based in the great cities of Delhi, Agra, and Lahore, the courts of the Mughal emperors were the most cosmopolitan on earth, embracing Europeans, Chinese, Persians, Hindus, and others. Their arts were similarly diverse, ranging from exquisite jewellery in jade, crystal, ivory, and precious jewels to brilliant miniature paintings of the emperors' exploits and some of the greatest architecture to survive from any culture—palaces, gardens, and mosques. Monuments considered include the great forts of Delhi, Agra, and Lahore, the lost palace of Fatehpur Sikri, and the Taj Mahal. Field trips to area museums. Mr. Bailey/Offered periodically

289 SUPERVISED INTERNSHIP/PRACTICUM

Supervised practical experience for majors in an arts associated setting such as a museum, library, gallery, administrative agency, journal, business, or school. Requirements include hands-on work experience as well as relevant bibliographical research and a term paper. Enrollment must be approved by the student's advisor prior to registration. Staff/Offered periodically

290 SENIOR THESIS IN ART HISTORY/SEMINAR

Required of all art history majors and overseen by one of the program faculty and taken during the last semester of the senior year while students write their thesis under the direction of their individual advisor. Provides students a forum for facilitating and sharing their thesis research. It also examines a range of issues in art history, including the changing nature of the discipline, approaches to research and genres of scholarship, and careers in and related to the field. Staff/Offered every year

Special Offerings

299 SEC. 1 DIRECTED READING
Staff

299 SEC. 2 DIRECTED RESEARCH
Staff

299 SEC. 3 DIRECTED WRITING
Staff

299 SEC. 4 FIELD PROJECT
Staff

299 SEC. 5 SPECIAL PROJECT
Staff

299 SEC. 6 SPECIAL TOPICS
Staff

299 SEC. 8 HONORS IN ART HISTORY: SENIOR YEAR
Qualified students who take honors in Art History should identify an area of interest, select an appropriate advisor, and apply for eligibility to the Art History faculty before the end of the junior year. The honors thesis is a year-long project, for which the student will take 299.1, Directed Reading or 299.2, Directed Research, in the fall of the senior year and 299.8, Honors in Art History, in the spring semester. A second reader, chosen by the student and the advisor, will participate in the final evaluation. Credit is given for course work completed, even if a student is not recommended for honors. Staff/Offered every year

299 SEC. 9 INTERNSHIP
Staff

STUDIO ART

Program Faculty

Sarah Buie, M.F.A., program director: *graphic design, museum design and interpretation*
Elli Crocker, M.F.A.: *drawing, painting*

Part-Time Faculty

Karl Baden, M.F.A.: *photography*
Joanna Bodenweber, M.F.A.: *foundation studies, graphic design*
Valerie Claff, M.F.A.: *foundation studies*
Stephen DiRado, B.F.A.: *photography*
Ron Rosenstock, M.A.: *photography*
Robert Schelling, B.A.: *sculpture*
Fred Simon, B.S.: *video production*
Sarah Walker, M.F.A.: *foundation studies, drawing, painting*
Patricia Woods, M.A.: *foundation studies, printmaking*

Emeritus

Donald W. Krueger, M.F.A.: *foundation studies, drawing, painting, illustration*

Undergraduate Program

This major is designed to meet a number of student needs and interests: preprofessional preparation for graduate study and/or a career in art, design, art education, arts management, art therapy, or other arts-related fields; the satisfaction of personal interest in art and design; significant involvement in the creative process; and a meaningful focus of liberal education.

The studio art major affords a high degree of flexibility in developing a program suited to individual needs and changing interests. A strong advising program assists students in curriculum planning, identifying areas of major interest, and preparing for graduate study or a career. Areas of specialization include drawing and painting, photography, graphic design, printmaking, sculpture and three-dimensional design, and video production.

In addition to course offerings, there are also exhibitions of the work of contemporary artists, course-related exhibitions, and exhibitions of senior thesis work in the University Gallery; field trips to galleries and museums as part of several studio courses; and, in the University Center's Craft Studio, opportunities for extracurricular involvement in arts and crafts activities.

The Studio Art Major

The major normally consists of 14 courses: 11 studio courses and three art history courses. The foundation courses—100 and 102—are required of majors. The studio courses, with approval of the program advisor, may include studios in music, theater arts, screen studies, and cartography as well as student-initiated non-traditional experiences. One interdisciplinary course in the program or the V&PA department is also required of majors. In certain circumstances, fewer studio art courses—but no less than eight—may fulfill the major. Admission to the studio art major is selective, and students must maintain an above-average academic record.

Honors in Studio Art

Students with a strong interest in art and design, a commitment to intensive study, and who have completed 12 studio courses with at least a B average may, with department approval, elect the honors sequence: two 200-level studios and a two-semester, two-credit senior thesis. Students are expected to use the honors courses and thesis to develop a body of preprofessional studio work in preparation for graduate study or a career in the arts. The thesis must be done as a senior, and will be reviewed by a faculty panel, with selected works from the thesis exhibited at the end of the year. Credit is given for course work completed, even if a student is not recommended for honors.

Combined and Double Majors

Eight studio courses and two art history courses normally serve as the studio art component of a double major or a student-designed major. A combined studio art-art history major, requiring a minimum of eight studio courses, may be developed in consultation with the studio art and art history program advisors.

Nonmajors

Studio art courses are open to all students, majors and non-majors alike; certain studio courses satisfy the University's aesthetic perspective requirement. Those students interested in studio art but majoring in other disciplines may develop a complementary four- or five- course sequence in any of the fields of study within the program, such as graphic design or photography, among others.

Courses

100 and 102 are "studio perspectives" designed to introduce students to the nature of visual language and the process of creative thought and action and to encourage the development of visual communication and expression skills. Although as a rule not prerequisites for other studio courses, these studio perspectives are required for majors and strongly recommended for non-majors as an introduction to and preparation for additional work in studio art.

100 VISUAL STUDIES: 2D DESIGN AND COLOR/ STUDIO, LECTURE, DISCUSSION

Considers visual perception and visual problem-solving/figure field relationships, two-dimensional pattern and form, and theory and dynamics of color. Problems in three-dimensional design may be introduced at the discretion of the instructor. Open to nonmajors. (AP) Staff/Offered every year

102 VISUAL STUDIES: DRAWING/STRUCTURE AND PROCESS/STUDIO, LECTURE, DISCUSSION

Addresses the mechanics and expressive potential of drawing. Traditional illusionistic drawing techniques will be combined with exercises which facilitate personal expression and subjective response. In exploring the relationship between seeing, thinking, and making, the beginning student will acquire fundamental skills in image-making and insight into the creative process in general. (AP) Staff/Offered every year

120 INTRODUCTION TO PHOTOGRAPHY: THE ZONE SYSTEM/STUDIO, LECTURE, DISCUSSION

Introduction to black-and-white photography emphasizing the zone system and including camera operation, developing, printing, and finishing techniques. Students must have a variable setting 35 mm camera with a built-in or hand-held exposure meter, and must provide their own film and paper. Open to nonmajors. Prerequisite: instructor permission. (AP)
Mr. DiRado, Mr. Rosenstock, Staff/Offered every semester

121 INTERMEDIATE PHOTOGRAPHY/ STUDIO, LECTURE, DISCUSSION

Continues the refinement of photographic seeing and darkroom techniques. Considers contemporary modes of photography and emphasizes development of personal vision. Open to nonmajors. Prerequisite: 120 or acceptable portfolio, and instructor permission.
Mr. DiRado, Mr. Rosenstock, Staff/Offered every year

124 INTRODUCTION TO GRAPHIC DESIGN/STUDIO, LECTURE, DISCUSSION

Introduction to the language, process, and potential of graphic design as communication. Exercises and applied problems emphasize the relationship between form and meaning, typography, image-making, and conceptual development. An introduction to basic design tools, including the computer. Ms. Buie and Ms. Bodenweber/Offered every year

125 GRAPHIC DESIGN PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate-level projects in graphic design, with reference to particular design media such as books, identity, maps, exhibit design, web sites, etc. Emphasizes on exploring conceptual development and the problem-solving process. (Knowledge of Mac-based page layout programs is helpful, but not required.) Prerequisite 124 or permission of the instructor. Ms. Bodenweber/Offered every year

128 BODY: PAINT, PENCIL, AND CAMERA/STUDIO, LECTURE, DISCUSSION

Taught concurrently with Photography 121. Employing various media in this collaboratively taught course, students will focus on the human body as the source of their imagery. From inside and outside, through objective observation and subjective experience, as metaphor or icon, this exploration of the human body will be expansive and nontraditional. In regarding the human form, we continue in an ancient process of self-definition and understanding. Both classes will share critiques and lectures, and some collaborative projects between students will be required. Prerequisite: 102 or instructor permission. (Taught alternate years with 129 Figure Drawing) Ms. Crocker/Mr. DiRado

129 FIGURE DRAWING/STUDIO, LECTURE, DISCUSSION

Focuses on the human form through various drawing methods, with analysis of the structure and anatomy of the body as well as exploration of the expressive potential and symbolic associations of the human figure. Prerequisites: 102 or instructor permission. (Taught alternate years with 128 Body: Paint, Pencil, & Camera) Ms. Crocker

132 BEGINNING PAINTING/STUDIO, LECTURE, DISCUSSION

Introduces the fundamentals of craft and explore the synthetic possibilities of paint, while discussing the conceptual basis for this medium (e.g., “Why paint?”). Focuses on material—both the materials employed by the painter, and the materials the painter simulates. Painting as a vehicle for thinking and communication will be stressed. (AP) Ms. Crocker/Ms. Walker

133 INTERMEDIATE PAINTING/STUDIO, LECTURE, DISCUSSION

A continuation of the study of painting with increasing emphasis on individual development and direction. Alternative media, experimental approaches to the depiction of form and space, and non-objective imagery will be introduced. Prerequisite: 132 or instructor permission. Ms. Crocker/Ms. Walker

136 INTRODUCTION TO SCULPTURE/STUDIO, LECTURE, DISCUSSION

Introduces the modes of three-dimensional creation through a variety of traditional and contemporary materials and concepts. Alternating emphasis on sculptural objects, the human figure, and issues of architectural/environmental expression. Open to nonmajors. Prerequisite: instructor permission. (AP) Mr. Schelling/Offered every year

137 SCULPTURE PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate-level course leading to the development of personal direction and expression in three-dimensional form. Open to nonmajors. Prerequisite: instructor permission. Mr. Schelling/Offered periodically

158 INTRODUCTION TO PRINTMAKING/STUDIO, LECTURE, DISCUSSION

Introduces the techniques and aesthetic of intaglio printing—primarily hard and soft ground etching methods, embossment, and aquatint—on metal plates. The course may include methods of engraving, drypoint, and collagraph. Open to nonmajors. Prerequisite: instructor permission. (AP) Ms. Woods/Offered every year

162 EXPLORING THE NATURAL WORLD/ DRAWING, PRINTMAKING, AND MIXED MEDIA/ STUDIO, LECTURE, DISCUSSION

Drawing serves as the media of discovery in on-site observations of conditions of light, reflection, water, sky, and landscape, as well as in-depth studies of pattern, texture, and design in flora and fauna. Etching, woodprint, and monoprint serve as mediums of translation and invention. A final book project focuses on environmental themes. Ms. Woods/Offered every year

167 INTRODUCTION TO VIDEO PRODUCTION/ STUDIO, LECTURE, DISCUSSION

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors. Mr. Simon/Offered every semester

171 VIDEO PRODUCTION PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate individual and/or group work in video. Open to nonmajors. Prerequisite: 167 or appropriate video production course(s) and instructor permission. Mr. Simon/Offered every year

174 CONTEMPORARY DIRECTIONS/STUDIO, LECTURE, DISCUSSION

Experiential examination of current movements, directions, styles, and attitudes in art. Open to nonmajors. Prerequisite: appropriate introductory course(s) and/or instructor permission. Staff/Offered periodically

182 TECHNICAL THEATER

See 120. Mr. Rothenberg/Offered every year

184 DESIGN FOR PERFORMANCE

See 123. Mr. Rothenberg/Offered every year

200 PHOTOGRAPHY PROJECTS/STUDIO, LECTURE, DISCUSSION

Continues the study of the techniques and aesthetics of black-and-white photography. Students have the opportunity to pursue individual photographic projects in the size and format of their choice. Open to nonmajors. Prerequisite: 120 and/or 121 and instructor permission. Mr. DiRado, Mr. Rosenstock, Staff/ Offered every year

204 SACRED SPACE/LECTURE, DISCUSSION, PROJECTS

Explores traditional and contemporary experiences of the sacred in spatial terms—through study of spatial and natural archetypes (i.e., mandala, threshold, cave, mountain); of geometric harmonies in nature, art, and architecture; of sacred and secular architectural forms (temple, stupa, shrine, indigenous village architecture); of geomancy or the relationship between built and natural environments; and of ancient and contemporary expressions of the natural world as Gaia, manitou, or sacred geography. Ms. Buie/Offered every year

208 TYPOGRAPHY/STUDIO, LECTURE, DISCUSSION

Study of the informational and expressive dimensions of typographical language. The history and technology of type is considered, with an opportunity to handset metal type as well as do extensive work on the computer. Applications to a variety of problems, including letterhead, poster, and publication design. Prerequisites 124 and/or 125, or permission of instructor. Ms. Buie/Offered every year

234 STUDIO TOPICS/STUDIO, LECTURE, DISCUSSION

Preparation for the senior thesis undertaken in the spring semester, but may be taken by other interested advanced-level studio art students in various concentrations, as well as non-studio students in other creative fields (such as music, writing, or theater). This interdisciplinary course is structured as a seminar and requires extensive student participation in discussions, as well as independent creative work in a chosen medium. Topics will revolve around both timeless and highly contemporary issues confronting the artist in the making of his/her work. Will involve readings and some writing. Prerequisite: instructor permission.
Ms. Crocker, Ms. Walker/Offered every year

250 PHOTOGRAPHY STUDIO/STUDIO, DISCUSSION

Advanced, professionally oriented, individual photographic study. May be taken for credit more than once. Prerequisite: appropriate intermediate and advanced photography courses and instructor permission. Mr. DiRado, Mr. Rosenstock, Staff/Offered every year

254 GRAPHIC DESIGN STUDIO/STUDIO, LECTURE, DISCUSSION
Advanced applied problems involving the role of designers in professional practice, working with clients and organizations. Consideration of the role of and opportunities for design in meeting communication needs. Prerequisites 124 and/or 125, or permission of the instructor. Ms. Buie/Offered every year

258 DRAWING AND PAINTING STUDIO/STUDIO, DISCUSSION
Refines technical ability in a chosen medium, sharpen critical thinking abilities, and develop a personal iconography. Independent work and thematic progression is encouraged. May be taken for credit more than once. Prerequisite: appropriate beginning/intermediate courses or instructor permission. Ms. Crocker, Ms. Walker

266 SCULPTURE STUDIO/STUDIO, DISCUSSION
Professionally oriented, individual study of sculpture, and spatial and three-dimensional design. May be taken for credit more than once. Prerequisite: appropriate sculpture experience and instructor permission. Mr. Schelling/Offered every year

270 PRINTMAKING STUDIO/STUDIO, DISCUSSION
Professionally oriented, individual study in printmaking. May be taken for credit more than once. Prerequisite: appropriate printmaking experience and instructor permission. Ms. Woods/Offered every year

278 VIDEO PRODUCTION STUDIO/STUDIO, DISCUSSION
Advanced projects in video production. May be taken for credit more than once. Prerequisite: appropriate intermediate-level video production courses and instructor permission. Mr. Simon/Offered every year

280 SENIOR STUDIO/STUDIO, DISCUSSION
Advanced, preprofessional, independent work under faculty supervision, in one of the studio media. May be taken for credit more than once. Prerequisite: appropriate advanced courses and program director permission. Staff/Offered every year

289 SENIOR THESIS
Honors program for studio art majors in any concentration. Working independently, but in close consultation of the instructor and interaction with the class peer group, the student will prepare a cohesive and mature body of work to be presented in a group exhibition in the University Gallery and to a faculty committee with oral and written support. This work should demonstrate original thinking and a high level of technical mastery. Prerequisite: 234 or instructor permission. Ms. Crocker, Ms. Walker/Offered every year

Special Offerings

299 SEC. 4 FIELD PROJECT
Staff

299 SEC. 5 SPECIAL PROJECT
Staff

299 SEC. 6 SPECIAL TOPICS
Staff

299 SEC. 9 INTERNSHIP
Staff

MUSIC

Program Faculty

Gerald R. Castonguay, Ph.D.: *musicology, medieval through 19th century music and cultural history*
Linda J. Dusman, D.M.A.: *program director, composer, theories of performance and music reception*
Matthew Malsky, Ph.D.: *composition, music theory and analysis, history and practice of computer music and hypermedia systems*

Part-Time Faculty

Barbara Barry, Ph.D.: *music history*
Donald Boothman, B.A.: *voice*
Richard Cain, M.Mus.: *string bass*
Robert Chadwick, M.Mus.: *bassoon*
Peter Clemente, M.Mus.: *classical guitar*
Jean De Mart, M.Mus.: *flute*
Mary Ferrante, B.A.: *voice*
Malcolm Halliday, M.M.: *piano*
David Hodgkins, M.Mus.: *choral director, conducting*

Bruce Hopkins, M.Mus.: *trumpet*
Boris Kogan, M.Mus.: *cello*
Sima Kustanovich, M.Mus.: *piano, ensemble pianist*
Katherine Matasy, M.Mus.: *clarinet*
Timothy McCall, B.Mus.: *saxophone*
Armen Movsessian, B.Mus.: *violin, viola*
Richard A. Odgren, B.Mus.: *jazz piano*
Olga Rogach, M.Mus.: *ensemble pianist*
Robert Schulz, M.Mus.: *percussion*
Douglas Weeks, M.Mus.: *trombone, low brass*
Staff: *jazz guitar and jazz studies*

Adjunct Faculty

Hartmut Kaiser, Ph.D.: *German romanticism, music, literature, aesthetics*

Emeritus

Wesley M. Fuller, M.Mus.: *theory, composition, electronic and computer music*

Undergraduate Program

The program offers both a major and a minor, as well as courses and activities for the nonmajor. Courses are designed to teach students to listen to music intelligently, to develop musical perception, to master basic skills of music and apply them creatively, and to acquaint students with representative works from various periods of music history. The study of music can open new perspectives on many aspects of culture and society and the program stresses the advantages of combining professional musical development with the humanistic breadth offered by a strong liberal education.

Courses are open to majors and nonmajors, and assignments are designed to suit the different goals and backgrounds of the students in each category.

The Music Major

Fourteen courses are required for the music major:

Requirements:

1. Theory: 121, 122, 223, 224
2. Music History: 101, 102, 103
3. Private Study: 180 (Two semesters—one unit each—of private instruction taken after completion of Music 121)
4. Performing Groups: a minimum of four semesters in 170, 171, 172, 173, or 174 (these are taken for non-credit).
5. One seminar at the 200 level, either in history or in theory/composition.
6. Two music electives, selected from computer music, world music, history, and theory seminars, or two additional semesters of 180. Students may also fulfill this requirement through tutorials, directed readings, or special projects. For the non-honors major, the second elective—taken during the senior year—is a capstone project fulfilled by taking 299 Directed Reading, 299 Special Project, or a second seminar at the 200 level.
7. Related areas: two courses, one within visual and performing arts in art history, studio art, theater arts, or screen studies; and one outside visual and performing arts in areas that relate to the major. For example, a major in the music history track focusing on French music of the late 19th and early 20th centuries could select a course dealing with the French language, French literature, European history, or cultural theory.
8. A minimum skills test, including sight-singing and dictation at a level of proficiency necessary for successfully pursuing the major, must be passed during the sophomore year. A keyboard proficiency test must be passed during the first semester of the junior year.

The four semesters (two required, two optional) of private lesson fees for the major are covered by regular tuition payment.

Honors

Admission to the Honors Program is by approval of the music faculty. Students may elect to pursue one of five different honors tracks: history, theory, composition, performance, or music technology. Application to the Honors Program in history, theory, composition or music technology is done at the beginning of the junior year. Application to the Honors Program in performance must be done at the beginning of the freshman year. Prospective majors who wish to pursue honors in performance must request an audition and assessment of their potential regarding the honors performance track at the start of their first year. Formal admission into the honors performance track requires a second audition at the start of the sophomore year.

Honors in History, Theory, Composition, or Music Technology

The 14 courses required for the music major, plus a project (a total of 15 courses) are required. The honors student will replace the two music electives of the music major (item six of the requirements) with study in a special area through either seminars or directed studies. These two special electives lead into the capstone project for the Honors Program (Music 299), where the student will develop a thesis in history or theory, an extended composition, or applications in music and technology.

Honors in Performance

The 14 courses required for the music major, plus two additional semesters of private study, and a senior capstone project culminating in a recital (a total of 17 courses), are required. The honors student will replace the two music electives of the music major (item six of the requirements) with two semesters of private lessons for credit (Music 180). Two semesters of Music 280 (for a total of six semesters of private study) culminate in a full recital and a companion capstone project (Music 290) dealing with the stylistic analysis of the music to be performed in the recital. At least four appearances in student recitals, including a half recital during the junior year, precede the senior recital. The lesson fee in the honors performance track is covered by regular tuition payment during the sophomore through senior years. It is strongly urged that Music 121 and 122 be successfully completed by the end of the first year.

Nonmajors

All of the courses, seminars, and activities in the music program—with the exception of senior tutorials (230, 240, 250, 260)—are open to qualified nonmajors. Students who have a strong interest in music but whose major lies in another discipline can declare a minor in music. The music minor centers on a core of studies in one of five specific areas.

The Minor in Music

Requirements:

1. Music 10 Introduction to Music
2. Music 110 Rudiments of Music (or Music 121, Theory I)
3. One course from the 100-level history or theory courses that would link to work in student's specific area of specialization (e.g., Music 103 Twentieth Century, for the minor in Music Technology)
4. Three additional courses in one of five specific areas of music:
   a. **Minor in Performance**
   Three semesters of Music 180. (For information on tuition coverage, see Music 180). Students wishing to specialize in performance should arrange for an audition by contacting the program director. Audition will determine acceptance into the minor.
   b. **Minor in Music Technology**
   Music 140 Music and Multimedia
   Music 141 Computer Music
   Music 270 Directed Studies in Computer Music
   c. **Minor in Jazz Studies** (offered through the Worcester Consortium)
   Music 150 Jazz Theory
   Music 151 Jazz History
   Music 250 Tutorial in Jazz Composition
   d. **Minor in Music History**
   Any three of the following music history courses and/or 200 level music history seminars:
   Music 101 Medieval, Renaissance, Baroque

Music 102 Classical and Romantic Periods
Music 103 Twentieth Century
Music 210 History Seminar

e. **Minor in Music Theory**
Music 121 Theory I: Tonality 1
and any two of the following:
Music 122 Theory II: Tonality 2
Music 223 Theory III: 20th-Century Practice
Music 224 Theory IV: Counterpoint

Performing Organizations

Nonmajors and majors may audition for a variety of organizations which rehearse regularly and perform several yearly concerts. These groups include the Clark Concert Choir and Chamber Chorus, Instrumental Chamber Ensembles, Drumming Ensembles the Clark Opera Theater, and the Jazz Workshop Ensembles.

Private Lessons

Private lessons for nonmajors and majors are offered with or without course credit in several areas. See 180, Private Instruction for Instruments and Voice (for credit) and Music 18, Private Instruction for Instruments and Voice (non-credit).

Preprofessional Programs

Students interested in such professions as music therapy, multimedia studio, concert management, ethnomusicology, or music education may combine music courses with appropriate courses from other disciplines to create an individually-designed major. The requirements for such preprofessional programs are jointly determined by the student and an advisory committee made up of one music faculty member and two faculty members from other disciplines.

Although the music program does not offer specific courses in music education, music majors interested in music education may take courses in the music curriculum, in conjunction with teaching courses through the education department. For more information, contact the education department.

Introductory Courses

010 INTRODUCTION TO MUSIC/LECTURE, DISCUSSION

Designed for the nonmajor, the course expands the concept of the musical experience and develops discriminating listeners. The course includes an introduction to principles of rhythm, pitch, timbre (and their notations); the principles of structure; the aesthetics of music; specific forms including fugue, sonata form, variations; and selected historical styles. Staff/Offered every semester

011 MUSIC AS CULTURE/LECTURE, SEMINAR

Students study and listen to the differences and likenesses in music from a wide variety of cultures and consider the ways in which music, ranging from classical art music to music for work and communal celebration, functions within a selected group of world cultures. Includes guest performers of ethnic music. Ms. Dusman/Offered every year.

110 RUDIMENTS OF MUSIC/LECTURE, TUTORIAL, LAB

Fundamentals of music requiring no previous musical training. Students learn to understand, hear, and write the basic elements of the pitch and rhythmic notation system. Skills gained enable students to pursue private instrumental or vocal instruction, and to begin work in composing. Ms Dusman, Mr. Malsky/Offered every year

Music History

101 MEDIEVAL, RENAISSANCE, BAROQUE/LECTURE, DISCUSSION

Survey that ranges from early Christian chant, the medieval song, and the motet to the music of Renaissance and Baroque genres focusing on the major composers of the periods. Ms. Barry, Mr. Castonguay/Offered every year

102 CLASSICAL AND ROMANTIC PERIODS/ LECTURE, DISCUSSION

Survey beginning with the music of 18th-century Vienna and focuses on the music of Haydn, Mozart and Beethoven and major figures of 19th-century romanticism. Ms. Barry, Mr. Castonguay/Offered every year

103 TWENTIETH CENTURY/LECTURE, DISCUSSION

Explores the abandonment of functional tonality after 1900 and its replacement with new musical systems, and the remarkable rejections and explorations which characterize the musical world after 1945. Studies the varied styles and the spirit of experimentation that is particularly characteristic of the second half of the century is an important focus of the course. Ms. Dusman, Mr. Malsky/Offered every year

210 HISTORY SEMINAR

For the advanced music student, rotating topics that include: J.S. Bach and His Music; Beethoven: The Man and His Music; Amadeus: The Life and Music of Mozart; French Impressionism; Richard Wagner's Music Dramas: Myth and Innovation. Prerequisites: 101 and 102 or instructor permission. Mr. Castonguay/Offered every year

230 SENIOR TUTORIAL IN MUSIC HISTORY

Develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Staff/Offered every semester

With program director permission, the following courses offered by other departments may be taken for music history, criticism and theory credit.

GERMAN 168 MUSIC IN GERMAN LITERATURE AND THOUGHT

See Foreign Languages and Literatures.

Music Theory Courses

121 THEORY I: TONALITY 1/LECTURE, TUTORIAL, LAB

Explores the system of tonal music commonly employed by composers of the 18th and early 19th centuries, as well as by composers of popular music today. This study, incorporating exercises, composition, analysis, and performance, also examines the way students listen to music in general, thus leading to a deeper understanding of the musical process. Ms. Dusman, Mr. Malsky/Offered every year

122 THEORY II: TONALITY 2/LECTURE, TUTORIAL, LAB

Deals with problems in analysis, composition, and orchestration in the chromatic style of the 19th century. Uses and analyzes the works of Beethoven, Chopin, Schumann, Wagner, and Brahms as compositional models. Also examines the harmonic language of impressionism, with its emphasis on scalar control. Prerequisite: 121. Ms. Dusman, Mr. Malsky/Offered every year

123 MUSIC AS DISCOURSE/LECTURE, DISCUSSION, FIRST-YEAR SEMINAR

Introduces contemporary musical discourse from a variety of theoretical perspectives through the study of "classical music," blues, opera, disco, country & western, rap, video, rock, and heavy metal. No formal training in music or music history is assumed. Mr. Malsky/Offered periodically

223 THEORY III: 20TH CENTURY PRACTICE/LECTURE, TUTORIAL

Analyzes compositional techniques of major 20th century composers and uses them as a basis for composition and analysis assignments. Prerequisite: 122 or instructor permission. Ms. Dusman, Mr. Malsky/Offered every year

224 THEORY IV: COUNTERPOINT/LECTURE, TUTORIAL

For the advanced music student, studies the styles and procedures used by composers throughout the development of western art music as models for independent creative work. While emphasizing counterpoint as a procedure, students are expected to have a good background knowledge of music theory and history. Prerequisites: 121, 122, and 223. Ms. Dusman, Mr. Malsky/Offered every year

140 MUSIC AND MULTIMEDIA/STUDIO, LECTURE, DISCUSSION

Acquaints students with the concepts of digital media, and directs them to create original works in computer music, hypertext, digital video, and computer animation/graphics/photography. Examines and discusses multimedia through readings on the historical, cultural and social contexts, and by studying CD-ROMs, Internet resources, and hypermedia performances. Mr. Malsky/Offered every year

141 COMPUTER MUSIC/STUDIO, LECTURE, DISCUSSION

Project-based and historically grounded exploration of the computer as a musical tool. Topics will include sound synthesis, digital audio theory, recording practice, MIDI theory, and interactive performance. Emphasizes aural skills—learning to listen with the discerning ears of the acoustician, composer and studio engineer. Prerequisite: instructor permission. Mr. Malsky/ Offered every year

150 JAZZ THEORY/LECTURE, TUTORIAL

Includes a study of the rhythmic/harmonic/ melodic structures of jazz, the scalar basis of improvisation, and voicing practice as it pertains to scoring for small and large ensembles Prerequisite: 110 or passing of placement examination in rudiments. Staff/Offered periodically

151 JAZZ HISTORY/LECTURE, TUTORIAL

Studies the evolution of jazz style from its 19th century beginnings to the present, including: African roots, minstrels, ragtime, Dixieland, swing, bop, progressive, cool, free-form, and third-stream. Requires a research paper and a final exam. Staff/Offered periodically

220 THEORY/COMPOSITION SEMINAR

Topics include: Composing the Greek Chorus; Sound Invention Workshop: The Search for Relevancy; Computer-Assisted Composition; Film and Music; Form and Analysis; Composition. Prerequisites 121, 122, 223, 224. Ms. Dusman, Mr. Malsky/ Offered every year

240 SENIOR TUTORIAL IN COMPOSITION

Develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Staff/Offered every semester

250 TUTORIAL IN JAZZ COMPOSITION

Student writes original scores for performance by a workshop ensemble. Prerequisite: 151 and instructor permission. Staff/Offered periodically

260 SENIOR TUTORIAL IN THEORY

Student develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Staff/Offered every semester

270 DIRECTED STUDIES IN COMPUTER MUSIC/ STUDIO, LECTURE, DISCUSSION

Advanced work in computer music: composition, hardware or software design, and psychoacoustics. Resources of the Tri-College Electronic Music Program are available to students. Prerequisite: 140, 141. Ms. Dusman, Mr. Malsky/Offered periodically

Performance Courses

180 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE

Areas offered include: piano, jazz piano, voice, jazz vocal, clarinet and saxophone, flute, classical guitar, jazz guitar, violin and viola, French horn, trumpet, bassoon, trombone and low brass, cello, percussion, string bass, and conducting. Lessons are taken for course credit. In areas not currently offered at Clark, the Music Program will find a qualified instructor. Award of credit in the off-campus study requires special permission from the program director. No credit is awarded for off-campus study in those areas currently available at Clark. Prerequisites: for the minor, Music 010 and either Music 110 or Music 121; for the major, Music 101 and 121 (co-registration is permissible for the major). Qualified students may begin lessons prior to or along with Music 010 and either Music 110 or Music 121. Students are admitted to Music 180 lessons (depending on available funding) on a competitive basis, which includes an audition and successful completion of the prerequisite courses. Approved minors receive three semesters of lessons covered by tuition, majors receive two semesters of lessons (with options available for one or two additional semesters covered by tuition), and majors in the Honors Performance track receive six semesters of lessons covered by tuition. Specific details are available in the music program office. Staff/ Offered every semester

280 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE (HONORS LEVEL)

Areas offered: Same as 180 above. Students enroll in Music 280 for the final two semesters of the honors track, and a full recital is required as the culminating project for those two semesters. Prerequisites: 4 semesters of Music 180. Staff/Offered every semester

018 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE

Lessons are taken for noncredit. Areas offered: same as 180 above. Lessons taken for noncredit require no prerequisite and are recommended for beginners. The fee is not covered by tuition. Staff/Offered every semester

Special Offerings

290 CAPSTONE PROJECT

299 SEC. 1 DIRECTED READING

Staff

299 SEC. 2 DIRECTED RESEARCH

Staff

299 SEC. 3 DIRECTED WRITING

Staff

299 SEC. 4 FIELD PROJECT

Staff

299 SEC. 5 SPECIAL PROJECT

Staff

299 SEC. 6 SPECIAL TOPICS

Staff

299 SEC. 8 HONORS

Staff

299 SEC. 9 INTERNSHIP

Staff

The following musical activities are open to all undergraduate and graduate students. Auditions are held during the first week of the fall semester. Although no credit is awarded, the transcript of any undergraduate who completes the assigned performance requirements will include a listing of the particular activity for which he or she was registered.

170 CLARK CONCERT CHOIR/REHEARSAL, PERFORMANCE

A chorus of 30 to 40 voices, the choir presents two major concerts each year on the Clark campus as well as in off-campus appearances. Mr. Hodgkins/Offered every semester

171 CLARK CHAMBER CHORUS/REHEARSAL, PERFORMANCE

This is a small, specialized singing group chosen from the larger Clark Concert Choir by the conductor. Admission is by audition. Mr. Hodgkins/Offered every semester

173 CHAMBER MUSIC ENSEMBLES/REHEARSAL, PERFORMANCE

The number of small ensembles is determined by the performing talent in a given year. Standing ensembles include opera theater, brass, woodwinds, flute, string, mixed, jazz vocal, and drumming. Admission is by audition. Staff/Offered every semester

174 JAZZ WORKSHOP/REHEARSAL, PERFORMANCE

Includes ensemble performance practice with weekly rehearsals throughout the year. An audition is required. Staff/Offered every semester

SCREEN STUDIES

Program Faculty

Marvin D'Lugo, Ph.D., *program director: Spanish and Latin American cinema*
Dana Benelli, Ph.D.: *American cinema, documentary cinema, film theory and criticism*
Marcia Butzel, Ph.D.: *French cinema, Italian cinema, screen theory and criticism*
Walter Schatzberg, Ph.D.: *German cinema*

Adjunct Faculty

Michael K. Spingler, Ph.D.

Undergraduate Program

The screen studies program deals with arts and artifacts of the moving two-dimensional image, usually combined with sound; it is concerned, in other words, with the study of film, broadcast television, and other forms of video. Program offers both a major and a minor, and stresses the importance of a liberal arts background, for the screen arts touch upon and are affected by all sectors of contemporary culture and society.

Provides a core of basic and advanced knowledge of the screen arts and media while encouraging students to explore diverse connections and influences, ranging from the visual arts, drama, literature, and aesthetics to sociology, psychology, history, and economics.

Nonmajors take screen studies courses to acquire knowledge that relates to their interests in other disciplines, to gain a better understanding of the roles film and television play in their everyday lives, or to understand the importance of the screen media as cultural and artistic forms. Those considering careers in the screen arts or related areas usually major in screen studies. In addition to being of special benefit for those planning graduate study or a career in the communications fields, the major also may be of interest to those seeking a liberal arts education that speaks directly to questions of contemporary life, culture, and the arts. Students interested in film and video production may take the program's production courses and/or gain production experience through professional internships.

The Screen Studies Major

Students majoring in screen studies enroll primarily in courses on the history, theory, and criticism of film, broadcast television, and other forms of electronic media. Requirements include courses in screen and courses in a related area, which may be discipline-specific (such as history, English, a foreign language/ culture) or interdisciplinary (such as communications studies). The coherence of the related area is determined by the student and his or her major advisor. Consists of at least 15 courses—a minimum of ten courses in screen (see item 1 of the requirements below), and at least five courses in a related area, with three of those five courses at the advanced level (see item 2 below). For a course to provide credit toward the major, a letter grade of "C" or better must be achieved.

Requirements:

1. Majors are required to take a minimum of 10 courses in screen studies. Of the 10 screen studies courses, three are specifically required:

   a. 101 Introduction to Screen Studies (to be taken as early as possible).

   b. One practicum course, normally Studio Art 167 Introduction to Video Production, or its equivalent. A maximum of two practicum courses may count toward the minimum of 10 screen courses required for the major. (If students do take additional practicum courses, they will count toward graduation, but not toward the major.)

   c. 289 Advanced Problems in Screen Studies, an advanced topics course resulting in a major term paper.

   In addition to these specific required courses, majors must complete:

   a. At least two screen history courses such as 119 American Film from its origins through WWII; 120 American Film Since WWII; 121 Survey of International Film Movements; 122 History of Broadcasting and Television; or 263 History of French Cinema.

   b. At least one screen theory course, such as 184 Film as Narration; 231 Film Theory; or 288 Gender and Film.

   c. One course on a national cinema , such as 150 New German Cinema; 152 Japanese Cinema; 155 Studies in Italian Film: Neorealism; 246 Studies in Spanish Cinema; 248 Studies in Latin American Cinema; or 249 Studies in Hispanic Cinemas.

   d. Additional elective screen studies courses to bring coursework to the 10 required screen studies courses.

2. Majors must demonstrate competence in a related area pertinent to the student's particular emphasis in screen studies. Requirements for the related area may be met by: completing requirements for a double major, or by completing five courses (chosen in consultation with the major advisor) which together form a coherent group. Three of these related courses must be at the advanced level.

Honors in Screen Studies

Students with a strong interest and commitment to advanced study in Screen Studies and who have completed at least six screen studies courses (including Screen 231) with at least a B+ average, may, with the department's approval, elect the honors sequence during their senior year: Screen 289 Advanced Problems and a one-or two-unit senior thesis. Students are expected to use the honors course to develop an extensive research project on some aspect of film history, criticism, or theory selected with their major advisor. Students planning to go on to graduate work in screen studies are encouraged to apply for the honors sequence.

Internships, Study Abroad, Special Projects

One unit of internship credit (299 Sec. 9 Internship) can be counted toward the major. In past years, students have held internships with local and regional media concerns, such as Greater Media Cable and WHDH-TV in Boston, and with the British Film Institute in London. Majors have opportunities for study abroad, often by pursuing 1-2 units of academic coursework and an internship during one semester. Clark's London Program has been the primary sponsor for study abroad in the major. A special topics course (299 Sec. 6 Special Topics) is available for advanced students, usually second-semester seniors, who wish to pursue an independent research project. In a recent special topics course on "Writing Film History," students organized and presented a campus film series on Japanese cinema and gender (including researched program notes, a panel discussion, and a term paper).

Nonmajors

All of the courses, seminars, and activities in the screen studies program are open to qualified nonmajors. Students who have a strong interest in screen studies but whose major lies in another discipline can declare a minor in screen studies. The minor consists of six courses.

The Screen Studies Minor

Requirements:

1. 101 Introduction to Screen Studies.
2. One film history course selected from 119 American Film from Its Origins Through WWII; 120 American Film Since WWII; 121 Survey of International Film Movements; 122 History of Broadcasting and Television.
3. One course in a national cinema selected from 246 Studies in Spanish Cinema; 248 Studies in Latin American Cinema; 249 Studies in Hispanic Cinemas; 152 Japanese Cinema; 155 Studies in Italian Film: Neorealism; 263 History of French Cinema; 188 The Culture of the Weimar Republic in Literature, Film, and the Arts.
4. One course that explores critical or theoretical considerations of the film medium, selected from 123 Factual Film and Television; 184 Film as Narration; 231 Film Theory; 288 Gender and Film; 289 Advanced Problems in Screen Studies.
5. Two electives in Screen Studies chosen in consultation with a program advisor.

Courses

Note: The courses listed below are designated as lecture, discussion, or seminar. However, all screen studies courses include viewing of films and/or television programming. Students are usually required to attend separate screening periods in addition to lecture, discussion, or seminar sessions.

101 Introduction to Screen Studies/Lecture, Discussion

Introduction to screen arts, with emphasis on critical thought and analysis. The course begins with attention to broad categories describing filmmaking activity, such as narrative and non-narrative form, classical Hollywood and art film traditions, genre filmmaking, etc. The latter part of the course is devoted to close textual analysis of the manner in which images and sounds are organized in film and television. Fulfills prerequisites for advanced screen studies courses. Mr. Benelli, Ms. Butzel/Offered every semester

119 American Film from Its Origins Through WWII/Lecture, Discussion

The history of the emergence and entrenchment of the Hollywood studio production system and the consolidation of a style of filmmaking now described as the classical Hollywood cinema. Topics to be covered include: silent filmmaking; the emergence of the star system, feature-length narrative filmmaking and film genres; the disruption of the coming of sound; the impact of the Depression and two world wars; and the start of Hollywood's Golden era. Mr. Bernelli/Offered every other year

120 AMERICAN FILM SINCE WWII/LECTURE, DISCUSSION

The history of post-WWII American cinema is the story of an ongoing series of adjustments to (or developments within the context of) instability in post-war film business: film noir, 3-D, biblical epics, blockbusters, artfilm influences "new blood," from TV and film schools, black filmmaking, revisionist genre films, "high concept" filmmaking, etc. Further complicating this process of adjustments, it was overlaid onto, and consequently influenced by, the political turmoil within American society in general—the 1950s witch hunts, the emergence of a mass counterculture, the anti-war movement, Watergate, and increasingly vocal demands by women and minorities for social equality (and media representation). Majors may use only one course of the cycle 119-120 to fulfill the screen history requirement. Mr. Bernelli/Offered every other year

121 SURVEY OF INTERNATIONAL FILM MOVEMENTS/LECTURE, DISCUSSION

Broad survey designed to acquaint students with major foreign movements in cinema history. Includes readings on and screenings of examples selected from Italian silent epics, German Expressionist and Weimar cinema, Soviet montage school, Soviet socialist realism, British documentary school, Nazi cinema, Italian neo-realism, Japanese classical cinema, French New Wave, post-New Wave political cinema, Third World cinema, New German Cinema, and various Eastern European schools. Mr. D'Lugo, Ms. Butzel/Offered every other year

122 HISTORY OF AMERICAN BROADCASTING AND ELECTRONIC MEDIA

This course considers how broadcasting and electronic media have been developed over the past century. We will examine the technical achievements of the field as well as its social and aesthetic impacts: from early electrical and wireless communication (telephone, radio), to mid-century inventions (television, satellites), and more recent innovations (cable, digital technology). We will sample a wide range of media productions, including early radio and TV shows, documentaries, and current media phenomena. Students will do some of their own historical research on broadcasting to supplement the course material. Staff/Offered every other year

123 FACTUAL FILM AND TELEVISION/ LECTURE, DISCUSSION

Opens with a description of the formal elements and textual processes by which documentary films construct their representations of reality. Then, a series of case study analyses of a variety of texts will serve as the basis for exploring documentary formats (TV news, documentary reenactments, cinema vérité, propaganda) and situations in which Hollywood and current television programming have appropriated documentary as a facet of their commercial activities (e.g., in TV movies, semi-documentary films, "infotainment," etc.). Course screenings will be drawn from both classic and contemporary documentaries.
Mr. Benelli/Offered every other year

130 FILM GENRE/LECTURE, DISCUSSION

Devoted to the study of the major storytelling formats into which much narrative filmmaking (especially that of the American cinema) may be categorized. The course considers theoretical perspectives, formal description, historical background, and social implications of genres such as the western, gangster film, musical, melodrama, etc., and through this work enable students to engage in and experience the interpretive insights of this critical perspective on the cinema. This course is taught as a variable topic, and may be offered as either an overview of several film genres or as a course concentrating on intensive study of a particular genre. Students may elect to take this course for credit more than once. Staff/Offered every other year

131 APPROACHES TO FILM ANALYSIS

Surveys a variety of critical methods for the interpretation of what films mean. Building upon basic formalist skills for describing and analyzing film form (narrative, film style, narration, etc.) the course considers how critical methodologies such as adaptation analysis, genre criticism, auteurism, psychoanalytic criticism, and cultural criticism approach the task of criticism and, often, reach different conclusions about a film's significance. Mr. Bernelli/ Offered periodically

140 FILM AUTHORS AND AUTHORSHIP/ LECTURE, DISCUSSION

Examines theory and practice of film authorship through a consideration of works by major American and international film authors. Studies historical development of the idea of film directors as authors in Europe and the United States. Emphasizes the impact of such theories on the study of various American figures, including Hawks, Ford, Dorothy Arzner, Vicente Minnelli, Hitchcock, and Scorcese, as well as such international figures as Renoir, Rossellini, Antonioni, Godard, Bertolucci, Rohmer, and Varda. Also examines the formation of film authorship in emerging cultural contexts, such as women's cinema and new national cinemas. Ms. Butzel, Mr. D'Lugo/Offered every other year

150 THE NEW GERMAN CINEMA/LECTURE, DISCUSSION

See German 150. Mr. Schatzberg/Offered every other year

152 JAPANESE CINEMA/LECTURE, DISCUSSION

How different was/is the Japanese cinema from the classical Hollywood cinema which has dominated the world's commercial filmmaking as a model to be either imitated or resisted? Addresses the issue of difference "from the outside" by engaging in: the study of the history of the Japanese film industry; identification of the characteristic storytelling formats of Japanese cinema; formal analysis of the stylistic signatures of its master directors (Ozu, Mizoguchi, Kurosawa, Oshima); and study of western criticism's discourse on this national cinema which one critic has called "our dream cinema." Mr. Benelli/Offered every other year

155 STUDIES IN ITALIAN FILM: NEOREALISM/LECTURE, DISCUSSION

Explores the political, cultural, and aesthetic role of Neorealist cinema in Italy. The link between film, history, and nationality during 1942-1951 directs us to broader questions concerning the relations between art and politics in fascist, Resistenza, and contemporary Italian culture. In addition to film texts and selections from the controversial critical debate over Neorealism in film and cultural history, we consider both precursors and inheritors of Neorealist cinema. Ms. Butzel/Offered every other year

184 FILM AS NARRATION/LECTURE, DISCUSSION

Explores a central approach to the study of film and gives students intensive training in film analysis. Students will become familiar with trends in narrative theory in order to analyze a range of narratives from world cinema. Specific concepts and topics to be considered include point of view, story structure, semiotic codes, the impression of reality, voice, and spectator positioning. Relationships between film and other art forms will also be considered. Prerequisite: 101 or instructor permission. Ms. Butzel/Offered every other year

188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM, AND THE ARTS/LECTURE, DISCUSSION

See German 188. Mr. Schatzberg/Offered every other year

231 FILM THEORY/LECTURE, SEMINAR

Examines major classical and contemporary works of film theory. Readings include Eisenstein, Bazin, Munsterburg, Arnheim, Burch, Benjamin, Adorno, Kracauer, Metz, Baudry, Heath, Mulvey, Wollen, Bordwell, and others. Prerequisite: 101 or instuctor permission. Mr. Benelli, Ms. Butzel, Mr. D'Lugo/ Offered every year

246 STUDIES IN SPANISH CINEMA/LECTURE, DISCUSSION

See Spanish 246. Mr. D'Lugo/Offered every other year

248 STUDIES IN LATIN AMERICAN CINEMA/ LECTURE, DISCUSSION

See Spanish 248. Mr. D'Lugo/Offered every other year

249 STUDIES IN HISPANIC CINEMAS/SEMINAR

See Spanish 249. Mr. D'Lugo/Offered periodically

263 HISTORY OF FRENCH CINEMA/ LECTURE, DISCUSSION

Studies major experiments and classical traditions of French cinema prior to 1940. Analyzes films, film scripts, criticism, and some film theory, emphasizing the development of film as an art and the importance of the cinema to French culture and society. Film screenings include the work of René Clair, Louis Delluc, Abel Gance, Man Ray, Fernand Léger, Germaine Dulac, Jean Vigo, Jean Cocteau, Jean Renoir, Jean Grémillon, and Marcel Carne. Ms. Butzel/Offered every other year

267 FRENCH CINEMA: THE NEW WAVE/ LECTURE, SEMINAR

See French 267. Mr. Spingler/Offered periodically

288 GENDER AND FILM/SEMINAR

Explores the ways that gender is produced by the "social technologies" of film and video. Examines concepts of sexual difference (masculinity and femininity) and organizing representation, narrative, and spectatorship in Hollywood and alternative cinemas, and in some television and video. Will also study the history of women's cinema. Readings will be primarily theoretical and critical, featuring the contributions of feminist film scholars and critics. Prerequisite: 101 or instuctor permission. Ms. Butzel/Offered every other year

289 ADVANCED PROBLEMS IN SCREEN STUDIES/ SEMINAR

Advanced studies of specific issues and approaches in screen arts. Topics vary and include: Brechtian cinema; inventing the feature film; Eisenstein as theoretician, filmmaker, and historical figure; the idea of a national cinema; and non-western filmmaking. Students produce a major term paper. Prerequisite: 101 or instuctor permission. Staff/Offered every other year

Special Offerings

299 SEC. 1 DIRECTED READING

Staff

299 SEC. 2 DIRECTED RESEARCH

Staff

299 SEC. 3 DIRECTED WRITING

Staff

299 SEC. 4 FIELD PROJECT

Staff

299 SEC. 5 SPECIAL PROJECT

Staff

299 SEC. 6 SPECIAL TOPICS

Staff

299 SEC. 9 INTERNSHIP

Staff

305 FEMINIST FILM THEORY AND CRITICISM

Explores the emergence of feminist film criticism from the women's movement of the 1970s and its subsequent "coming of age" via such theoretical frameworks as semiotics, psychoanalysis, and Marxism. Emphasizes understanding the role of critical theory as appropriated by feminist analysis of film and culture. Readings include work by Freud, Lacan, Metz, Mulvey, Kuhn, and DeLauretis. Theory is related to a historical range of international practices, including films by Dulac, Arzner, Deren, Hitchcock, Godard, Ackerman, and Rainer. Ms. Butzel/Offered every other year

THEATER ARTS

Program Faculty

Raymond J. Munro, M.A.H.: directing, acting theory, independent narrative video
Neil R. Schroeder, Ph.D., program director: theater history and literature, modern drama, Ibsen, speech

Part-Time Faculty

Gino DiIorio, M.F.A.: acting
Derek Lane: scenic, lighting, and costume design, technical theater
Catherine Quick Spingler, M.A.: costume design

Adjunct Faculty

Paul Burke, Ph.D.
Hartmut Kaiser, Ph.D.
Michael K. Spingler, Ph.D.
Virginia Vaughan, Ph.D.

Undergraduate Program

Courses in theater arts—open to majors and nonmajors—provide students with a sound liberal education and prepare them for graduate school or professional theater. Each year, the program presents professionally directed productions of classic and contemporary theater. Theater production auditions are open to any Clark student. Students who take theater arts courses are required, as part of their course work, to participate in these productions. There are also opportunities for students to act and direct in classes, workshops, and student-sponsored productions, and to audition for Clark Center for Contemporary Performance productions.

The Clark Center for Contemporary Performance is a scholarly community of directors, composers, playwrights, choreographers, film/video makers, and critics devoted to the creation, development, and publication of contemporary works of art as well as to theoretical reflection about the works and their performance. The range of such work includes new scripts, original compositions or scores, translations, transformation of poetry into performance pieces, and explorations of the intersection of music, dance, and video in the performance of existing works.

The center is designed to enhance the academic work of the University by organizing and focusing advanced learning through seminars and directed study in music, theater, film, design, literature, and aesthetics. Advanced students are encouraged to develop creative and theoretical projects so that they may take full advantage of the critical evaluation and supervision available at the center, and enrich their educational experience through contact with faculty, other students, and outside artists and performing groups.

The Theater Arts Major

The major consists of a minimum of nine courses with a focus in one of three tracks: theater history and literature, performance, or production.

Required of all majors: (four core courses)

a. 112 The Creative Actor

b. 120 Technical Theater

c. 150 Theater in Western Civilization I

d. 151 Theater in Western Civilization II

In addition:

Required for the theater history and literature track: (a minimum of five additional courses)

e. 110 How Does a Play Work?

f. at least four additional courses in theater history, dramatic literature, criticism, and aesthetics, as approved by the program director

Required for the performance track: (a minimum of five additional courses)

e. 111 Voice and Diction

f. 212 Actor as Thinker

g. 213 Studio

h. at least two courses from the following:
  167 French Dramatic Expression
  167 (Studio Art) Introduction to Video Production
  213 Studio (may be repeated)
  219 Directing Seminar

Required for the production track: (a minimum of five additional courses)

e. 212 Actor as Thinker

f. 123 Design for Performance

g. At least three of the following:
  125 Theatrical Design Projects
  126 The Physical Theater/Environmental Studio
  127 Analysis of Theater Production
  219 Directing Seminar
  100 (Studio Art) Visual Studies—Design
  102 (Studio Art) Visual Studies—Drawing
  136 (Studio Art) Introduction to Sculpture
  167 (Studio Art) Introduction to Video Production
  225 Advanced Theatrical Design Projects
  226 Advanced Production Projects
  Approved courses in art history, aesthetics, studio art, and English (286 through 289)

Nonmajors

All courses and seminars in the theater arts program are open to qualified nonmajors. Students whose major lies in another discipline can declare a minor in theater arts, with a focus on one of three tracks: theater history and literature, performance, or production.

The Minor in Theater Arts

Requirements for the history and literature track:

a. One of the following:
  110 How Does a Play Work?
  020 (English) Introduction to Literature and Composition

b. 112 The Creative Actor

c. 120 Technical Theater

d. 150 Theater in Western Civilization I

e. 151 Theater in Western Civilization II

f. One additional course in drama or theater as approved by the program director. Possible choices include 153 Modern Drama I; 154 Modern Drama II; 164 The American Musical Theater; 285 Tennessee Williams; 256 Ibsen; 299.1 Directed Readings; drama courses taught in other departments.

Requirements for the performance track:

a. One of the following:
   110 How Does a Play Work?
   150 Theater in Western Civilization I
   151 Theater in Western Civilization II

b. 112 The Creative Actor

c. 120 Technical Theater

d. 212 Actor as Thinker

e. 213 Studio

f. One of the following:
   167 French Dramatic Expression
   167 (Studio Art) Introduction to Video Production
   213 Studio (may be repeated)
   219 Directing Seminar

Requirements for the production track:

a. 120 Technical Theater

b. 123 Design for Performance

c. One of the following:
   125 Theatrical Design Projects
   299, section 5 Special Project

d. 126 The Physical Theater/Environmental Studio

e. 150 Theater in Western Civilization I

f. One additional course as approved by the Program Director. Possible choices include: 151 Theater in Western Civilization II; 127, Analysis of Theater Production; and the following Studio Art courses: 100 Visual Studies Design; 102 Visual Studies Drawing; 136 Introduction to Sculpture; 167 Introduction to Video Production; drama courses taught in other departments; 225 Advanced Theatrical Design Projects; 226 Advanced Production Projects.

The Capstone experience for both majors and minors will usually be participation in or working on productions, often in the form of a Special Project, Directed Reading, Directed Research, Field Project, or Internship. Such projects might include directing a play, researching a role, designing for a production, building a show, or stage managing, and might involve working in/on V&PA productions, student productions, or productions off campus. In some cases, the Capstone experience might be a critical or research paper or thesis.

Honors Program

Students with distinguished academic records who wish to take honors in Theater Arts should consult the program director early in their junior year so that they may have identified a project of interest and chosen an honors advisor by the end of their junior year. The project can be a critical or historical thesis or a creative work (production, design, playwriting, etc.).

Courses

110 HOW DOES A PLAY WORK? CRITICAL ANALYSIS AND WRITING/LECTURE, DISCUSSION

Explores a small group of plays representing several styles, modes, and eras of Western drama, with special emphasis on formal analysis—study of the form and structure of each play. The student will be encouraged to arrive at a personal evaluation of the plays. This course satisfies the verbal expression skill in the Program of Liberal Studies. Several short papers. Mr. Schroeder/Offered every year

111 VOICE AND DICTION/STUDIO, TUTORIAL

An intensified phonetic approach to articulation and voice production with some emphasis on speech for the stage and for public occasions. Several laboratory sessions will be provided for individual coaching by the instructor. This course is non-graded; it must be taken on a credit/no credit basis. Mr. Schroeder/Offered every year

112 THE CREATIVE ACTOR/STUDIO

Through a series of workshops, the student becomes familiar with the basic tools necessary to the art of acting. The approach is based on the techniques of Stanislavski, Viola Spolin, Joseph Chaikin, Robert Cohen, and original exercises, including an introduction to basic voice and movement for the actor. Limited to 25 students. Mr. Munro, Mr. DiIorio/Offered every semester

119 PUBLIC SPEAKING/STUDIO

Students are required to make as many speeches as time permits, so that they may master the fundamentals of public speaking, including the most common situations: presentation of information and persuasive speaking. Mr. Schroeder/ Offered every year

120 TECHNICAL THEATER/STUDIO, LECTURE

Introduction to theatrical production. Techniques and organization involved in providing the stage with scenery, lights, and properties. Introduces drafting, scaled ground plans, elements of design, and styles of production. Makeup, lighting, and set construction in applied lab/crew requirements. Mr. Lane/ Offered every semester

123 DESIGN FOR PERFORMANCE/STUDIO, TUTORIAL

Theory of design/function of visual artist in relationship to production, director, or choreographer. Collaboration in and development of performance art. Historical research in styles of ornament and production. Drawing, painting, and model building. Lab/crew assignments. Mr. Lane/Offered every year

125 THEATRICAL DESIGN PROJECTS/STUDIO, TUTORIAL

Intermediate level projects in design and presentation techniques for theater productions. Work in areas of scenery, costume, or lighting design. Prerequisite: Theatre 120. Mr. Lane/Offered every semester

126 THE PHYSICAL THEATER/ENVIRONMENTAL STUDIO/STUDIO, TUTORIAL

Study of designed environment and structure as it relates to performance and the physical theater as well as contemporary installation projects. Study of public spaces, theater architecture, and site-specific work. Mr. Lane/Offered every other year

127 ANALYSIS OF THEATER PRODUCTION/ SEMINAR

Examination of live theater productions through written and verbal criticism. Critical elements of the concept of production explored through assigned readings and the development of a production proposal/concept. Attendance required at scheduled evening and/or weekend performances in the Worcester/Boston area. A lab fee will be collected to pay for tickets and bus rental. Mr. Lane/Offered periodically

130/131 THEATER IN THE CLASSROOM/SEMINAR, WORKSHOP

A practical introduction to the art of creative drama in the classroom. Story dramatization, leader-in-role activities, curriculum-based drama, lesson plans, and activities in sensitivity, imaging, movement, dialogue, and characterization will be explored. Mr. Lane/Offered periodically

150 THEATER IN WESTERN CIVILIZATION I/ LECTURE, DISCUSSION

A survey of theater and drama from ancient Greece to the Renaissance. Considers the form and substance of theatrical presentations and the study of several representative plays from each important era and national theater. Satisfies the aesthetic perspective requirement. Mr. Schroeder/Offered every other year

151 THEATER IN WESTERN CIVILIZATION II/ LECTURE, DISCUSSION

A survey of theater and drama from the 17th century to the present, this is a continuation of 150. Satisfies the aesthetic perspective requirement. Mr. Schroeder/Offered every other year

153 MODERN DRAMA I/LECTURE, DISCUSSION

A survey of Western drama and theater from Ibsen to World War II. Traces the development of modern realistic drama and early experimental reactions to realism. At least three papers or exams. Mr. Schroeder/Offered every other year

154 MODERN DRAMA II/LECTURE, DISCUSSION

A survey of Western drama and theater from World War II to the present, which examines several of the major postwar movements and the radical dramatic forms they have produced. At least three papers or exams. Mr. Schroeder/ Offered every other year

164 THE AMERICAN MUSICAL THEATER/ LECTURE, DISCUSSION

While some attention is paid to the history of the musical theater in the U.S., the course emphasizes the study and analysis of several important contemporary musicals, and the form and structure of books, lyrics, and music. At least three papers, exams, or creative projects. Mr. Schroeder/Offered periodically

205 THE PLAY AND ITS STAGES/SEMINAR, WORKSHOP

A critical approach to the dramatic text based on historical and material conditions of performance. Considers the changing ways that meanings are made through styles and conventions of performance (including set, costume, mask, and vocal delivery) that are specific to historical and cultural moments. Playwrights considered may include Sophocles, Shakespeare, Racine, Molière, Chekhov, Ibsen, Brecht, Genet, and Beckett. There is scene work in class. Mr. Spingler/Offered every other year

206 LANGUAGES OF THEATER/SEMINAR, DISCUSSION

Studies the way meanings are made in theater through structure and sign. Examines the function of non-verbal communication in theater, especially mask, gesture, movement, and sound. Examines the influence of certain non-western dramatic traditions such as Noh and Kabuki upon a number of western experimental theaters. Plays may include Euripedes' The Bacchae, Shakespeare's The Tempest, Cocteau's Eiffel Tower Wedding Party and Orpheus, Apollinaire's The Breasts of Tiresias, Jarry's Ubu Roi, Genet's The Balcony, and Pinter's Homecoming. Critical works read include Artaud's The Theater and its Double, Brook's The Empty Space, and Grotowski's Towards a Poor Theater. There will be scene work in class. May be taken as a companion course to 205. Mr. Spingler/Offered periodically

212 ACTOR AS THINKER/STUDIO, LECTURE, DISCUSSION

A conceptual approach to acting theory and its application. Student develops a greater understanding of script analysis, characterization, style, and the relationship of the actor to the audience. A basic course for all students who intend to continue in acting and directing, and a prerequisite for 213 Studio, and 219 Directing Seminar. Prerequisite: 112. Limited to 15 students. Mr. Munro/Offered every semester

213 STUDIO

A scene-study course applying the methods, theories, and approaches discussed in Actor as Thinker to working on stage, film, and video. Students are required to present several scenes of different periods and styles for discussion, critical written review, and further development by classmates and director. Content varies each time the course is taught. May be repeated for credit. Lab and crew hours are required. Prerequisite: 212. Mr. Munro, Mr. DiIorio/Offered every semester

214 SHAKESPEARE IN ACTION/STUDIO

This acting course concentrates on the major works (Hamlet, Macbeth, Twelfth Night, Romeo and Juliet, etc.), giving the actor an introduction to Shakespeare. The actor is encouraged to maintain the same approach and techniques used in other scene work, while adding the challenge of verse and heightened language. The focus of the class is to take a Shakespearean play and create the illusion of the first-time performance. Mr. DiIorio/Offered periodically

219 DIRECTING SEMINAR

Introduces the principles of directing for the stage through theory, practical application, and discussion. Students study problems of interpretation and concept; the role of the director as creative and interpretive artist; and relationship to designer, stage manager, and actors. Additional lab time is required. Prerequisites: 213 and instructor permission. Mr. Munro/Offered every year

225 ADVANCED THEATRICAL DESIGN PROJECTS
Advanced-level projects in design. May be repeated for credit. Prerequisite: instuctor permission. Mr. Lane

226 ADVANCED PRODUCTION PROJECTS
Introduces the business and practical execution of theatre productions. Students learn techniques in organizing and managing different areas and departments. Requirements include participating in a supervisory position on a department show. Positions in outside theaters accepted for credit. Mr. Lane

285 TENNESSEE WILLIAMS/LECTURE, DISCUSSION
An intensive study of the playwright's work concentrating on his development as an artist. Independent research and study is emphasized. No prerequisite, but some experience in drama and literature is expected. Mr. Schroeder/Offered periodically

286 IBSEN/LECTURE, DISCUSSION
An intensive study of the playwright's major works. Independent research and study is emphasized. Prerequisite: instuctor permission. Mr. Schroeder/Offered periodically

Special Offerings

299 SEC. 1 DIRECTED READING
Staff

299 SEC. 2 DIRECTED RESEARCH
Staff

299 SEC. 3 DIRECTED WRITING
Staff

299 SEC. 4 FIELD PROJECT
Staff

299 SEC. 5 SPECIAL PROJECT
Staff

299 SEC. 6 SPECIAL TOPICS
Staff

299 SEC. 9 INTERNSHIP
Staff

With permission of the program director, the following courses offered by other departments may be taken for theater history and literature credit:

CLASSICS 135 CLASSICAL GREEK TRAGEDY/LECTURE, DISCUSSION
See Ancient Civilizations.

ENGLISH 120 INTRODUCTION TO SHAKESPEARE/LECTURE
See English. Ms. Vaughan, Ms. Gertz/Offered every year

ENGLISH 122 ENGLISH DRAMA I/LECTURE, DISCUSSION
See English. Ms. Vaughan/Offered every other year

ENGLISH 123 ENGLISH DRAMA II/LECTURE, DISCUSSION
See English. Mr. Sultan/Offered every other year

ENGLISH 253 ADVANCED STUDIES IN SHAKESPEARE/SEMINAR
See English. Ms. Vaughan/Offered every year

FRENCH 165 FRENCH DRAMATIC EXPRESSION: PLAY PRODUCTION/LECTURE, DISCUSSION
See Foreign Languages and Literatures. Mr. Spingler/Offered every other year

FRENCH 170 THE MODERN FRENCH THEATER: EXPERIMENTS OF THE AVANT-GARDE/LECTURE, DISCUSSION
See Foreign Languages and Literatures. Mr. Spingler/Offered every other year

GERMAN 166 GERMAN DRAMA FROM LESSING TO BRECHT/LECTURE, DISCUSSION
See Foreign Languages and Literatures. Mr. Kaiser/Offered every other year

Concentrations

ASIAN STUDIES

Participating Faculty

Paul S. Ropp, Ph.D., *program director: Chinese history*

Michiko Y. Aoki, Ph.D.: *Japanese language, literature, and culture*

Cynthia H. Enloe, Ph.D.: *Japanese and Southeast Asian politics*

Robert C. Hsu, Ph.D.: *Chinese and Japanese economies*

Thomas P. Massey, Ph.D.: *Chinese history and U.S.-Asian trade*

Undergraduate Program

Asian Studies is an interdisciplinary concentration that can be taken as a complement to any major. The concentration requires six Asian studies courses. Of these six courses, three may be selected from language courses; the other three must be selected from non-language courses. The concentration further requires that two of the non-language courses must be 200-level courses and one must include a significant research component. Students concentrating in Asian Studies are encouraged, though not required, to take at least one year of Chinese or Japanese language, and to study one year abroad in Asia.

Through Clark's Study Abroad Office, students may apply to enroll at Kansai Gaidai University near Osaka, Japan, or at the CET program in Beijing, for language and other courses on Japan or China. Students may spend one year or one semester at Kansai Gaidai which requires at least one year of Japanese language prior to study in Japan. The CET program in Beijing is available for one semester each year in the spring term. Enrollment in the CET program requires at least three semesters of Chinese language study prior to enrollment in China. Clark offers Chinese and Japanese language courses at the beginning and intermediate levels, and advanced Japanese as well. Through the Colleges of Worcester Consortium, students may also take advanced Chinese and other Asia-related courses at the College of the Holy Cross. Students who concentrate in Asian Studies are also encouraged to take courses from the following list of related courses: GEOG 127, Political Economy of Third World Underdevelopment; GEOG 184, Landscapes of the Middle East; GOVT 117, Revolution and Political Violence; GOVT 261, Women and Militarization in a Comparative Politics Perspective; HIST 090, Twentieth-Century Global History; ID 125, Development Problems; and (depending on the topic) HIST 291, Seminar in Advanced Topics in International Relations. Although these courses do not carry Asian Studies credit, they deal with Asia and therefore supplement the list of regular Asian Studies courses that follows.

Courses

030 CONFUCIANISM, DAOISM, BUDDHISM/FIRST-YEAR SEMINAR

See History 033. Mr. Ropp/Offered periodically

080 INTRODUCTION TO MODERN ASIA/LECTURE

Compares native traditions, colonial experiences, and post-colonial developments in Asia since 1800, using historical and journalistic counts and literary selections. Mr. Ropp/ Offered every other year

084 JAPANESE CIVILIZATION/LECTURE, DISCUSSION

See History 084. Staff/Offered periodically

CHINESE 101-102 BEGINNING CHINESE/LECTURE, DISCUSSION

See Chinese 101-102. Staff/Offered every year

JAPANESE 101-102 ELEMENTARY JAPANESE/ LECTURE, DISCUSSION

See Japanese 101-102. Staff/Offered every year

JAPANESE 103-104 INTERMEDIATE JAPANESE/ LECTURE, DISCUSSION

See Japanese 103-104. Staff/Offered every year

JAPANESE 105-106 ADVANCED JAPANESE/ LECTURE, DISCUSSION

See Japanese 105-106. Prerequisite: Japanese 104-105 or permission of instructor. Ms. Aoki/ Offered every year

160 THE ARTS OF ASIA/LECTURE, DISCUSSION

Mr. Bailey/Offered every other year

161 History of India/Lecture, Discussion
See History 161. Staff/Offered periodically

177 Japanese and Chinese Economies/ Lecture, Discussion
See Economics 177. Mr. Hsu/Offered every other year

181 Chinese Civilization (formerly Traditional China)/Lecture, Discussion
See History 181. Mr. Ropp/Offered every other year

182 Modern China/Lecture, Discussion
See History 182. Mr. Ropp/Offered every other year

184 Modern Japan/Lecture, Discussion
See History 184. Staff/Offered periodically

236 Politics of Philippines and Vietnam/ Lecture, Discussion
See Government 236. Ms. Enloe/Offered every other year

255C Chinese Civilization and Society: Selected Topics/Proseminar (COPACE-MALA 355C)
An exploration of social, political, and economic themes in Chinese history. Mr. Massey/ Offered every other year

265 Politics of Japan/Lecture, Discussion
See Government 265. Ms. Enloe/Offered every other year

266 History of U.S.-Japan Trade Relations/ Lecture, Discussion (COPACE)
Surveys the history of U.S.-Japan trade and economic relations from the early 1800s to the present. Mr. Massey/Offered every other year

279 Late Imperial China/Seminar
See History 279. Mr. Massey and Mr. Ropp/ Offered periodically

281 The People's Republic of China/ Lecture, Discussion
See History 281. Mr. Ropp/Offered every other year

282 Chinese Women in Literature and Society/Lecture, Discussion
See History 282. Mr. Ropp/Offered every other year

283 Japanese Culture and Economic Development
See History 283. Ms. Aoki/Offered periodically

285 Japanese Folklore/Proseminar
See History 285. Ms. Aoki/Offered periodically

286 The Vietnam War/Lecture, Discussion
See History 286. Mr. Ropp/Offered periodically

288 Seminar in Chinese History
See History 288. Prerequisite: Asian Studies 080 or 181 or 182, or by permission. Mr Ropp/ Offered periodically

289 Japanese Thought/Proseminar
See History 289. Prerequisite: History 080 or 084, or by permission. Ms. Aoki/Offered periodically

296 Women Mirrored in East and West/ Seminar
See English 296. Ms. Gertz and Mr. Ropp/ Offered periodically

COMPUTATIONAL SCIENCE

Program Faculty

Raphael Bruschweiler, Ph.D.: *biomolecular dynamics*
Arthur Chou, Ph.D.: *algorithms, complexity*
Harvey Gould, Ph.D.: *computer simulation*
Fred Green, Ph.D.: *theory of computation, structural complexity*
Todd Livdahl, Ph.D.: *population biology, biostatistics*
Natalia Sternberg, Ph.D.: *applied mathematics, scientific computing*

Undergraduate Program

The enormous progress in computational technology has generated a new methodology for learning and advancing the traditional sciences such as physics, chemistry, and biology. Computational science combines the application of numerical methods, models, and algorithms in the context of solving problems that are intractable by traditional methods. It is distinct from computer science, which is the study of computers and computation, and it is different from theory and experiment, the traditional forms of science, in that it seeks to gain understanding principally by the analysis of mathematical models.

The goal of the computational science concentration is to provide an opportunity for students to learn about the interplay between science and computation. The concentration is especially suitable for undergraduate students majoring in the sciences, mathematics, or computer science, but students in other majors will be considered on an individualized basis. Students completing the computational science concentration would be able to enter graduate programs in their majors or in newly created interdisciplinary graduate programs in computational science and would be well prepared to go into industry.

Concentration Requirements

Because of the sequential nature of many of the requirements and the relatively large number of major requirements for students in the concentration, students are encouraged to plan early and carefully. A student's choice of advanced courses must be approved by the concentration faculty. Typical course schedules for biology, chemistry, computer science, mathematics, and physics majors are given on the associated Web site, http://science.clarku.edu/compu_sci.html. The requirements vary depending on the student's major and interests, but all students are required to complete the following (or equivalent):

Introductory courses

CSci 101 (or the equivalent), 102
Math 120, 121 or 124, 125
One year of chemistry or physics
Phys 125 Computer Simulation Laboratory (Phys 125 can be substituted for CSCI 101)

Advanced courses

Four additional courses are required from a list of recommended courses with the approval of the program faculty.

Bio 280 Biostatistics and Computer Applications
CSci 160 Data Structures and Algorithms
CSci 210 Artificial Intelligence
Csci 211 Topics in Artificial Intelligence
Math 114 Discrete Mathematics
Math 212 Numerical Analysis
Phys 215, Advanced Computer Simulation Laboratory

Research project

A minimum of a one-semester research project with a member of the program faculty.

CULTURAL IDENTITIES AND GLOBAL PROCESSES (CIGP)

Program/Faculty

The Henry R. Luce Professor - Parminder Bhachu
Program Director - Cynthia Enloe (Professor of Government)

Luce Faculty Committee Members:

Parminder Bhachu, Nancy Budwig, Maria Acosta Cruz, Cynthia Enloe, Susan Hanson, Fern Johnson, Sharon Krefetz, Virginia Vaughan, Robert Vitalis

Participant Teaching Faculty including Luce Committee members

David P. Angel, Ph.D., *Director: urban/economic geography, social theory*
Parminder Bhachu, Ph.D., *urban anthropology, diaspora cultures, immigration and migrant identities, cultures of money markets and financial globalization, class and consumption, ethnicities, nationalism, gender and entrepreneurship*
S. Leslie Blatt, Ph.D., *Experimental nuclear physics, physics education*
Daniel Borg, Ph.D., *modern german history, modern european history, totalitarianism*
Nancy Budwig, Ph.D., *Language development, the development of categories of human action, socialization*
Marcia Butzel, Ph.D., *Foreign Languages and Literatures, film and cultural studies, women's studies*
Maria Acosta-Cruz, Ph.D., *Foreign Languages and Literatures, Latin American literatures and comparative literature*

Sarah Deutsch, Ph.D., *History, U.S, social history and U.S. women, American social history]*
Debórah Dwork, P.h.D., *History, modern European history; history of the Holocaust*
Cynthia Enloe, Ph.D., *Government and International Relations, women and politics, militarization, Asian and British politics, ethnic and racial politics*
Richard Ford, Ph.D., *Director, International Development Research, African history, resource management, participation, sustainable development process*
Susan Hanson, Ph.D., *Geography, urban social geography, transportation, local labor markets, women's studies*
Douglas Johnson, Ph.D., *cultural ecology, arid lands management*
Fern Johnson, Ph.D., *English language, communication, and culture, with special emphasis on gender and race, feminist linguistics*
Dorothy Kaufmann, Ph.D., *Foreign Languages and Literatures, contemporary French feminism, women writers, comparative cultural studies.*
Winston Napier, Ph.D., *African-American literature, literary theory*
Richard Peet, Ph.D., *political economy of development, social theory, geography of consciousness*
Ronald Richardson, Ph.D., *European cultural history, British history and British empire*
Diane Rocheleau, Ph.D., *cultural/political/ systems ecology, gender, forestry and agricultural, environment/development*
Zenovia Sochor, Ph.D., *Russian and Ukranian politics, comparative politics, foreign policy, nationalism*
Barbara Thomas-Slayter, Ph.D., *Program of International Development, community organization, Third-World women and public policy, rural development, gender and environment*
Shelly Tenenbaum, Ph.D., *Sociology, Judaic studies, race/ethnicity, social stratification, Jewish women in the U.S. and Europe*
Virginia Vaughan, Ph.D., *Shakespeare, Renaissance draama, Renaissance poetry and prose*
Robert Vitalis, Ph.D., *international political economy, politics of the Middle East*

The Henry R. Luce Professorship and Program on Cultural Identities and Global Processes is interdisciplinary and explores an emerging international paradox. The dramatic growth in transnational and global phenomena has led to the existence of a global community which has significantly contributed to the demise of the nation-state. Yet, at the same time, there is a resurgence of cultural identities in both regional and local contexts. In the late 1990s, this paradox takes on special urgency because never before have both communities and international structures had available such powerful tools for persuasion and coercion: the internet, entertainment behemoths, small militias, large military alliances, global tourism. These tools are altering the ways that groups interact with each other, with the state, and also with the international community.

The CIGP/Luce program's perspective is that identities are socially constructed and negotiated in historical and geographical contexts. In recent times these cultural identities have emerged and interacted in new ways in response to global processes. The Luce program explores ideas of cultural diversity by incorporating the study of such social/cultural processes into an **interdisciplinary** teaching format. The examination of this topic from an interdisciplinary perspective, a major strength of Clark scholars, is critical to our understanding of a rapidly changing world, especially as it stands at the brink of a new global reality.

In order to conceptualize these new realities, the Luce Professorship and CIGP program is continuously involved in innovative undergraduate curriculum revisions. This is reflected in the initiation of entirely new courses and the organization of symposia and workshops with both national and international scholars, to explicate further these currently critical and globally-relevant themes. A particularly important aspect of this was the inauguration of the **Henry R. Luce Lecture Series** in September 1992. This on-going series has brought to campus world-renowned scholars to discuss with students and faculty CIGP topics such as: the impact of financial transactions and money markets on global cultural patterns; the emergence of new cultural spaces and transnational settings through popular cultural forms, consumer commodities, and through nationalist processes. Activities are organized with and around each speaker to facilitate exposure of undergraduates to innovative conceptual ideas and models.

Henry R. Luce Undergraduate Concentration on Cultural Identity and Global Processes

What distinguishes the "CIGP" Concentration from other concentrations is its focus on the *processes of culture across societal boundaries*. This special focus can be seen best in the criteria we use to choose each course that serves as a CIGP course: it must be explicit in its investigation of the construction of cultures; it must compare cultures; and it must analyze ways cultures are internationally transmitted and negotiated.

The Cultural Identities and Global Processes concentration for undergraduates may be pursued with any major. It requires students to take six courses which builds skills from introductory to junior-senior level.

Two of these six courses must be specifically CIGP courses, from the CIGP section below. The introductory course (CIGP 161) is mandatory and the second course can be selected from the two CIGP capstone seminar courses listed below.

Students are required to take four other courses, from the courses cross listed below, two of which must be at the 200 level. These courses are intermediate in analytical sophistication. Each of these courses fulfill the special CIGP criteria but allow a CIGP concentrator to select a particular focus for attention. Students take the 200 level CIGP courses after taking the mandatory introductory CIGP 161 course.

Each student concentrator selects a CIGP faculty advisor from among the CIGP faculty committee. This advisor helps ensure that each student's intermediate courses provide intellectual coherence.

The following courses have been selected by faculty on the CIGP committee to fulfill this program's analytical criteria.

CIGP Courses - Two out of this list are required

CIGP 161 (MANDATORY INTRODUCTORY COURSE) CULTURAL IDENTITIES AND GLOBAL PROCESSES PARMINDER BHACHU

275 CULTURE, CONSUMPTION, AND CLASS IN LOCAL AND GLOBAL CONTEXTS
(One of two possible mandatory capstone seminars - Maximum 18 students) Parminder Bhachu

278 THE CREATION OF NATIONALISMS, NATIONALIST CULTURES, AND SYMBOLS
(One of two possible mandatory capstone seminars - Maximum 18 students) Parminder Bhachu

294 GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY

Four of the following courses are required, two at the 200 level

CIGP. 271 RACE, MIGRATION, GENDER, AND ETHNICITY
Parminder Bhachu

EDUCATION

EDUC. 273 SCIENCE AND SOCIETY
Leslie Blatt / Staff

EDUC. 327 CULTURE, LANGUAGE & EDUCATION
Staff

ENGLISH

ENG. 291 HARLEM RENAISSANCE
Winston Napier

ENG. 182 AFRICAN-AMERICAN LITERATURE I
Winston Napier

ENG. 183 AFRICAN-AMERICAN LITERATURE II
Winston Napier

FOREIGN LANGUAGES AND LITERATURES

FR. 249 THE FRENCH-SPEAKING WORLD
Dorothy Kaufmann

SP. 243 Latin American Essay and Thought
William Ferguson / Maria Acosta-Cruz

GEOGRAPHY

GEOG 117 Culture Landscape
Douglas Johnson

GEOG 127 Political Economy of Underdevelopment
Richard Peet

GEOG 170 Divided Cities, Connected Lives
Susan Hanson

GEOG 179 International Political Ecology
Dianne Rocheleau

GOVERNMENT

GOV 070 Introduction to Comparative Politics
Cynthia Enloe

GOV 228 Comparative Politics of Race, Ethnicity, and Gender History
Cynthia Enloe

GOV 286 Advanced Topics in Comparative Politics
Section 1: International Feminist Thought
Cynthia Enloe
Section 2: Creating National Identities
Zena Sochor

HISTORY

HIST 124 Ethnicity and Nationalism in Modern Europe in Comparative Perspective
Daniel Borg

HIST 204 History of the Holocaust
Dwork

HIST 205 History of the American West
Staff

HIST 255 Global Relations: 20th Century
Ronald Richardson

HIST 266 Historical Identities
Ronald Richardson

INTERNATIONAL DEVELOPMENT

ID 130 Local Action: Global Change
Richard Ford

ID 128 Family & Sex Roles in Cross-Cultural Perspectives: An Anthropological Approach
Staff

ID 212 Women and Social Change (Seminar)
Barbara Thomas-Slayter

ID 270 Ethnicity and Social Differences
Staff

PSYCHOLOGY

PSYC 160 Language, Emotion, Thought, and Culture
Nancy Budwig

SOCIOLOGY

SOC 231 Sociology of Culture
Eric Gordy

SCREEN STUDIES

SS 121 International Film Movements
Dana Benelli / Marcia Butzel

SS 248 Latin American Cinema
Marvin D'Lugo

SS 259 Advanced Problems: Nation and Cinema
Staff

CIGP - All taught by Parminder Bhachu, Luce Professor

The following courses require some Social Sciences/Humanities background. Preference will be given to students who have already taken or are in the process of taking courses in Government, Cultural Geography, Women's Studies, Sociology, History, etc.

CIGP 161 Cultural Identities and Global Processes
Explores the impact of local, national, and international forces in the formation of cultural identities at a time of rapid social changes in the 1990s. It focuses on contemporary urban cultures to examine local and national identities as they are globally determined. It emphasizes the elastic and the plastic nature of cultures and the importance of time, place, and space to understand the emergence of new culturally diverse settings. Examines the nature of social and cultural change in local, national, and global economic and political spaces.
Offered every year

CIGP 271 RACE, MIGRATION, GENDER, AND ETHNICITY

Examines the impact of migration on ethnicity, from the perspectives of gender and race. Focuses on the impact of the economic on the cultural through women's engagement with the waged labor market, and as it is impacted upon by migration. Changes in the sexual division of labor within the household and the emergence of women's new cultural patterns, especially in Europe and the U.S. are explored. Emphasis is placed on the importance of class, ethnicity, and race in the formation of "ethnic cultures" as they respond to continuously changing and culturally diverse settings. Offered alternate years

CIGP 275 CULTURE, CONSUMPTION, AND CLASS IN LOCAL AND GLOBAL CONTEXTS

Focuses on political, cultural and ethnic aspects of consumption. Emphasizes how people and groups define themselves through symbols in consumer products. Examines the interplay between the world market and cultural identities, local and global processes, and consumption and cultural strategies to discover the consumer subcultures. Students conduct a small ethnographic project on consumer pattern, product, or culture. Offered alternate years

CIGP 278 THE CREATION OF NATIONALISMS, NATIONALIST CULTURES, AND SYMBOLS

At a time of rapid global changes and globalization, nationalisms and nationalists cultures have grown dramatically. This course explores how nationalist identities and resistance are determined by culture and the cultural symbols, such as key consumer commodities, cultural symbols, gender, and language and dress codes. Offered alternate years

CIGP 294 GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY

This course focuses on emergent ethnographic concerns which attempt to capture fluid cultural processes and connections as they unfold in late 1990's global arenas. It deals with multiple-sited ethnography of movement, displacement, replacement, and the global traffic in culture. It also analyzes "traditional" ethnographies and ethnographic methods of the founding pioneers - including the work of the famous Clark University ethnographer Franz Boas. Transnational connections and commodity circuits that we are part of in the late 20th century will be examined. It focuses on methods of tracking and capturing fluid border and borderless cultural and economic spaces.

ETHICS & PUBLIC POLICY

Participating Faculty

Mark C. Miller, J.D., Ph.D., *program director; American political institutions, constitutional law*
Marguerette Arndt, Ph.D., *health policy*
John Blydenburgh, Ph.D., *game theory, policy analysis, public opinion research*
Robert Bradbury, Ph.D., *health policy*
Halina Brown, Ph.D., *risk analysis and management, public health policy*
Brian Cook, Ph.D., *public policy, environmental policy, environmental law*
Judith W. DeCew, Ph.D., *philosophy of law, social and political philosophy, ethics*
Patrick G. Derr, Ph.D., *philosophy of science, biomedical ethics, ethical issues in hazards management*
Cynthia Enloe, Ph.D., *women and politics, military policy, ethnic and racial politics*
Eric Gordy, Ph.D., *political sociology*
Susan Hanson, Ph.D., *transportation policy*
Douglas Johnson, Ph.D., *land management policy*
Roger Kasperson, Ph.D., *environmental policy, risk analysis and management*
Brad Klein, Ph.D., *political theory, international relations*
Deborah M. Merrill, Ph.D., *medical sociology, family, aging*
Attiatt Ott, Ph.D., *health economics, health policy*
Edward Ottensmeyer, Ph.D., *management, business ethics*
Gary E. Overvold, Ph.D., *interdisciplinary studies, cultural history, professional ethics*
Michael Pakaluk, Ph.D., *philosophy of love and friendship*

Frank Puffer, Ph.D., *health economics, health policy*
Robert Ross, Ph.D., *social planning and social policy*
Christina Sommers, Ph.D., *ethics, feminist philosophy, contemporary moral theory*
Walter E. Wright, Ph.D., *ethics*

Undergraduate Program

The interdisciplinary Ethics and Public Policy concentration can be taken in conjunction with any major at Clark. This concentration is particularly recommended for students who intend to pursue professional or career interests in policy-related fields such as law, government, public administration, or health care.

Concentration Requirements

The requirements for a concentration in ethics and public policy are designed to familiarize the student with the basic concepts and methods of both ethical analysis and policy analysis; to introduce the theoretical and methodological problems of both ethical analysis and policy analysis; and to ensure that the student engages in sustained analysis of particular ethical and public policy issues at both an introductory and an advanced level.

At a minimum, the concentration in ethics and public policy requires six courses, distributed in the following manner:

1. Two required courses in ethics

    At least one introductory course focused on the basic concepts and methods of ethical analysis. For example:
    PHIL 105 Personal Values
    PHIL 132 Social and Political Ethics

    At least one advanced course focused on theoretical and methodological problems of ethical analysis. For example:
    PHIL 220 History of Ethics
    PHIL 221 Social and Political Philosophy
    PHIL 228 Contemporary Moral Theory

2. Two required courses in public policy analysis

    At least one introductory course focused on the basic concepts and methods of policy analysis. For example:
    GOVT 107 Research Methods
    GOVT 154 The Politics of Public Policy
    GOVT 155 Roots of Political Thought
    ENV 175 Science, Decision Making, and Uncertainty

    At least one advanced course focused on theoretical and methodological problems of policy analysis. For example:
    GOVT 202 Applications of Game Theory
    ES 212 Environmental Policy and Management
    GOVT 213 Policy Analysis
    ENV 226 Environmental Hazards
    SOC 243 Political Sociology
    SOC 246 Social Planning and Social Policy
    ENV 250 Technology Assessment
    GOVT 253 Judicial Politics
    GOVT 255 U.S. Congress
    ENV 261 Decision Analysis for Environmental Management
    ENV 265 Tools for Quantitative Policy Analysis
    GOVT 281 Politics of Public Management

3. Two Required courses on applications and problems

    At least one introductory course focused on particular ethical and public policy issues. For example:
    GEOG 105 The Keeping of Animals: Patterns of Use and Abuse
    ID 108 World Population
    ID 125 Development Problems
    PHIL 130 Medical Ethics
    ES 132 Environmental Ethics
    PHIL 133 Business Ethics
    GOVT 147 Normative World Orders
    EDUC 155 Education and Social Policy
    GOVT 157 The Politics of Environmental Issues

ENV 182 People, Politics, and Pollution

At least one advanced course devoted to the intensive analysis of particular ethical and public policy issues. For example:

ENV 210 Environment and Society
ECON 216 Tax Systems and Policies
GOVT 221 Urban Policy and Internships
ECON 225 Health Policy
ENV 226 Environmental Hazards: Theory, Models & Applications
SOC 239 Aging and Society
SOC 241 Sociology of Medicine
GOVT 250 National Security Policy Making in the U.S.
ENV 251 Limits of Earth
GEOG 254 Urban Transportation: Problems and Prospects
GEOG 258 Utopian Vision, Urban Reality
MGMT 262 Business Ethics
PHIL 270 Philosophy of Law
EPP 273 Advanced Issues in Medical Ethics
ENV 282 Management of Environ Pollutants

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for Directed Research or Directed Readings.

Internships

Participating faculty sponsor a variety of undergraduate internship experiences, often with policy-making professionals or agencies with whom they have a consulting or research relationship. Students interested in these opportunities should inquire through the internship office.

Courses

All courses that count toward the concentration will be cross-listed under the EPP designation. For more details about a specific course, see the catalog listing under the participating department.

HOLOCAUST AND GENOCIDE STUDIES PROGRAM

Core Faculty

Deboráh Dwork, Ph.D., *Rose Professor of Holocaust Studies and Modern Jewish History and Culture: Modern European history, history of the Holocaust*

Everett Fox, Ph.D., *the Allen M. Glick chair in Judaic and Biblical Studies: Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*

Robert Gellately, Ph.D., *Strassler Family Chair for the Study of Holocaust History: modern German history, modern Central European history, history of the Holocaust*

Walter Schatzberg, Ph.D.: *Age of Goethe, Weimar culture, German expressionism in literature and the arts, German cinema, relations between literature and science*

Shelly Tenenbaum, Ph.D., *program director: sociology of American Jewry, race and ethnicity, gender*

Participating Faculty

Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers, autobiography, French and Francophone cultural studies*

Paul Lucas, Ph.D.: *England and France before 1800; European intellectual history, 1650-1945*

Undergraduate Program

The Holocaust and acts of genocide are studied to enhance our understanding of the society from which we came, the society in which we live, and the society to which we currently are giving shape. By studying the Holocaust and genocide, we learn about ethnicity, geography, and genocide; about collusion and resistance; about the hot violence of mass murder and the cold violence of the modern, bureaucratic machinery of death; and about suffering and adaptation to suffering. We learn how societies disintegrated step by step, and how ordinary men, women, and children both participated in and were affected by this disintegration. We learn, in short, a tremendous amount about what we need to know now to help us make the world a better place, wherever we might be.

The undergraduate concentration in Holocaust and Genocide Studies provides students with solid grounding in the history of the Holocaust and other genocides. Students also take a series of courses in a variety of disciplines to ensure a critical, analytical, and sophisticated understanding of the various facets of these atrocities. The undergraduate program of study emphasizes history while encompassing sociology, government, psychology, literature, film, and music.

Concentration Requirements

The Holocaust and Genocide Studies concentration may be pursued in conjunction with any major. Students are required to take a minimum of seven courses including a capstone and the following three required core courses: HIST 178 The History of the Holocaust: Part 1, HIST 284 The Holocaust and Its Aftermath, and SOC 130 Comparative Genocide. HIST 178 or SOC 130 should be taken prior to HIST 284. Students must take three additional courses, with the following four provisions:

* two courses from section A, one of which must be in Jewish Studies

* one course from section B

* at least two courses at the 200-level

* these courses must be in at least two different disciplines

The program faculty members will serve as advisors to students, providing guidance in selecting courses and developing a capstone experience.

Section A

Two out of this list are required, one of which must be in Jewish Studies

HIST 124 Ethnicity and Nationalism in Modern Europe in Comparative Perspective
JS 130 Suffering and Evil in Jewish Tradition
JS 174 The Jewish Experience
GOVT 186 Upheaval in Eastern Europe
GER 188 The Culture of the Weimar Republic in Literature, Film, and the Arts
HIST 252 19th-Century Europe
HIST 253 20th-Century Europe
HIST 259 Modern Germany
JS 262 Jews and Christians in the Ancient World
HIST 272 In Search of Humanity: 19th Century European Values
JS 276 Modern Jewish History and Thought
GER Post-1945 German Film and Literature (Walter Schatzberg)
HIST Emigration, Immigration, and National Policy (Deborah Dwork)
JS Jews and Germany from 1780 to the Present (Walter Schatzberg)

Section B

One of the following courses is required

GOVT 112 Comparative Authoritarian Systems
PSYCH 170 Introduction to Social Psychology: Holocaust, Genocide, and Human Rights
GOVT 178 Politics and History of South Africa
CMLT 209 Literary Responses to the Holocaust
SOC 252 Race and American Society
HIST 254 Empire and Race in British History
JS 261 Jewish Children in Nazi Europe
HIST Rescue and Resistance (Deborah Dwork)
CMLT Literature and Film in Nazi-Occupied France (Dorothy Kaufmann)
MUS Music and Totalitarianism

Capstone Courses

The capstone requirement may be fulfilled through a directed research project, an internship, or a seminar. Internships may be arranged with the Museum of Jewish Heritage: A Living Memorial to the Holocaust, the United States Holocaust Memorial Museum, local Holocaust museums and memorials, Holocaust-related foundations such as the Simon Wiesenthal Center, the Jewish Foundation for the Righteous, Facing History and Ourselves, and Holocaust-related institutions in Europe and in

Israel. Other internships can be arranged with the approval of the student's advisor. Examples of seminars that fulfill the capstone requirement are JS 261 Jewish Children in Nazi Europe and HIST Rescue and Resistance.

JEWISH STUDIES

Program Faculty

Debórah Dwork, Ph.D.: *Modern European history, history of the Holocaust*
Everett Fox, Ph.D., *program director: Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*
Shelly Tenenbaum, Ph.D.: *sociology of American Jewry, race/ethnicity, women in Jewish culture*

Adjunct Faculty

Paul F. Burke, Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology, ancient history*
George M. Lane, M.A.: *U.S. foreign policy, arms control, Middle East politics, U.S.-European relations*
Robert J. Vitalis, Ph.D.: *international relations, political economy, Middle East politics*

Visiting Faculty

Tzilla Barone, B.A.: *Hebrew language and literature*

Undergraduate Program

Jewish Studies at Clark are designed to introduce the student to the major historical and religious trends in Jewish civilization since its inception in antiquity. The courses reflect the broad range of developments both encountered and fostered by the Jewish people: their contact with other world civilizations, their classical literature, their social and religious institutions, and their interaction with the modern world. In these courses, Jews and Judaism are studied both in their own internal context and as paradigms for wider trends in history and religion.

Concentration Requirements

All students must take JS 174 The Jewish Experience, a survey of Jewish history and thought. In addition to JS 174 students must take six courses of which at least two must be in the Classical area and at least two in the Modern area. One of the six courses must be an integrating capstone project (internship, independent study, or advanced seminar with the approval of the program director). Two courses in Hebrew language may also count toward concentration. It should also be noted that courses in other departments cited below are cross-listed.

CLASSICAL

JS 117 Introduction to the Hebrew Bible I: Narrative and Law
JS 118 Introduction to the Hebrew Bible II: Prophecy and Poetry
JS 121 Laws and Legends, Maxims and Mystical Tales
JS 122 Workshop in Judaism: Sacred Time and the Life Cycle
JS 123 The Midrashic Tradition
JS 130 Suffering and Evil in Jewish Tradition
JS 150 Jerusalem in History and Imagination
JS 262 Jews and Christians in the Ancient World
JS 267 The Religious Experience in the Ancient World

MODERN

JS 203 American Jewish Life
JS 204 History of the Holocaust
JS 210 Arab-Israeli Conflict
JS 245 U.S. Foreign Policy-Middle East
JS 258 Women in Jewish Culture (also Classical)
JS 276 Modern Jewish History and Thought
JS 277 History of Zionism and Israel

Courses

Hebrew Language And Literature Courses

101-102 ELEMENTARY HEBREW/LECTURE, DISCUSSION

See Hebrew 101-102. Ms. Barone/Offered every year

103 INTERMEDIATE HEBREW/LECTURE, DISCUSSION

See Hebrew 103. Ms. Barone/Offered every year

104 INTERMEDIATE/ADVANCE HEBREW/LECTURE, DISCUSSION

See Hebrew 104. Ms. Barone/Offered every year

105 ADVANCED HEBREW/LECTURE, DISCUSSION

See Hebrew 105. Ms. Barone/Offered every year

299 SEC. 6 SPECIAL TOPICS IN HEBREW

See Hebrew 299.6. Ms. Barone/Offered periodically

Jewish Studies Courses

117 INTRODUCTION TO THE HEBREW BIBLE I: NARRATIVE AND LAW/LECTURE, DISCUSSION

A close reading (in English) of the first half of the Hebrew Bible, Genesis through Kings II. Issues to be considered include: the rise of Israel against the background of the Ancient Near East, myth and history in the ancient world, biblical storytelling as an artistic and ideological form, and the world view behind biblical laws and rituals. Also discussed is the process by which the Bible took shape, in relation to ancient Israel's self-understanding. The tools of recent research in comparative religion, anthropology, archaeology, and literature are utilized. Emphasizes the contribution of this literature to Western thought. Mr. Fox/Offered every year

118 INTRODUCTION TO THE HEBREW BIBLE II: PROPHECY AND POETRY/LECTURE, DISCUSSION

A close reading (in English) of the poetic portions of the Hebrew Bible, from Isaiah through the Writings. The prophetic revolution in Israel is evaluated: its roots its impact on its own society as well as on later social and cultural criticism in the West. The artistry of biblical poetry is analyzed, along with the thematics of piety, despair, resignation, and eroticism that are found in such books as the Psalms and the Song of Songs. Finally, books of a more philosophical bent (Ecclesiastes, Job), which question the earlier assumptions of biblical faith, are read. As in Hebrew 117, emphasis is placed in the influence of the Bible on later thinking in the West. Mr. Fox/Offered every year

121 LAWS AND LEGENDS, MAXIMS AND MYSTICAL TALES/LECTURE, DISCUSSION

Introduces (in English) major texts of post-Biblical Judaism. Beginning with the Roman period, the texts cover such diverse areas as folklore, ethics, legal rules, and mysticism. The sources involve ancient answers to questions of everyday living, physical and spiritual survival, and celebration; we also trace the reformulation of such questions down to the eve of the modern period. Stresses how the texts work, centering on the role of commentary as a classic form of Jewish discourse and on an active style of group learning. Mr. Fox/Offered every other year

123 THE MIDRASHIC TRADITION/ LECTURE, DISCUSSION

An English-language study of Midrashic literature, the primary Jewish literary expression after the Bible. Written down mainly during the Roman period, the texts comprise independent legends about supernatural beings; writings about biblical characters (filling in gaps in the biblical stories); traditions about the lives of the ancient rabbis; and wide-ranging statements about worldly wisdom, ethical values, and political reality. Sources are ready with an eye toward what they reveal about ancient Jewish society and in the light of recent work in folklore studies. A final unit considers later forms of Midrash, such as Hasidic and contemporary variations. Mr. Fox/Offered every other year

130 SUFFERING AND EVIL IN JEWISH TRADITION/LECTURE, DISCUSSION

A central problem in Western religious thought is theodicy: how to explain the existence of suffering and evil in a world ruled by a supposedly benevolent God. Examines a variety of Jewish sources on the problem, which propose a wide variety of answers. Central are the biblical book of Job and its interpretations through the centuries; at the other end of history, responses to the Holocaust are considered. Mr. Fox/Offered every other year

150 JERUSALEM IN HISTORY AND IMAGINATION/ LECTURE, DISCUSSION

Travels through the complex history of Jerusalem, a city holy to Jews, Christians, and Muslims, from the Bronze Age to the present.

The governing powers and cultures centered in the city will be studied, from Israelites to Persians, Greeks, Romans, Byzantines, Umayyad Arabs, Crusaders, Ottoman Turks, European colonials, and present-day Israelis and Palestinians. Their political and religious visions of the city, and how these have played out in conquest, governance, and architecture, will be discussed. Also considered will be the universal concept of sacred space, as demonstrated by Jerusalem. We will move from the Jerusalem of daily reality—including that of today—to the Jerusalem of the mind, suffused with the deeds of Herod and Isaiah, Herod and Jesus, Mohammed and Saladin; a city envisioned by millions as the site of future redemption for humanity. Mr. Fox/Offered periodically

174 THE JEWISH EXPERIENCE/LECTURE, DISCUSSION
A survey of the history of the Jewish community and the development of Judaism from the era of Alexander the Great (c. 325 B.C.E.) to the present. Examines the major political, religious, social, and economic trends of each period as they affected the evolving Jewish community and the development of Judaism. Emphasizes elements of change and continuity as well as the interaction of the Jewish community with the larger culture/community. Mr. Fox/Offered every year

203 AMERICAN JEWISH LIFE
See Sociology 203. Ms. Tenenbaum/Offered every other year

204 HISTORY OF THE HOLOCAUST
See History 278. Ms. Dwork/Offered every year

210 PALESTINE, ISRAEL, AND THE ISRAELI-ARAB CONFLICT/LECTURE, DISCUSSION
See Government 210. Mr. Vitalis/Offered every other year

245 U.S. FOREIGN POLICY-MIDDLE EAST
See Government 245. Mr. Lane/Offered every year

258 WOMEN IN JEWISH CULTURE
See Sociology 258. Ms. Tenenbaum/Offered every other year

262 JEWS AND CHRISTIANS IN THE ANCIENT WORLD
See Classics 262. Mr. Burke/Offered every other year

267 THE RELIGIOUS EXPERIENCE IN THE ANCIENT WORLD
See Ancient Civilizations 267. Mr. Burke/Offered every other year

276 MODERN JEWISH HISTORY AND THOUGHT
See History 276. Staff/Offered periodically

277 HISTORY OF ZIONISM AND ISRAEL
Examines the rise and development of the Zionist idea, Zionist parties, and politics and diplomacy in relation to Jewish history and international affairs from 1880 until 1948. The second part of the course analyzes Israel's domestic and foreign policies from 1948 to the present. Special attention is given to social and political trends in Israeli society. Staff/Offered periodically

LAW AND SOCIETY

Core Faculty Advisors

Mark C. Miller, J.D., Ph.D., *program director: judicial behavior, lawyers and American politics, U.S. constitutional law, comparative courts and law*
Judith W. DeCew, Ph.D.: *philosophy of law, social and political philosophy, privacy and the law*
Patricia M. Ewick, Ph.D.: *sociology of law, deviance and social control*

Undergraduate Program

The interdisciplinary Law and Society concentration explores questions about the impact and effects of law, legal institutions, and legal actors on society from a variety of perspectives. It also explores the identification and analysis of legal arguments in a variety of contexts. Some of the courses also help the students develop their oral advocacy skills. The concentration can be taken in conjunction with any major at Clark.

Concentration Requirements

1. Students must take a minimum of six courses to fulfill the concentration.
2. The six courses must come from at least three different departments.

3. At least two of the courses must be at the 200 level.
4. One of the six courses must be a gateway course, which should be taken as early as possible in the student's academic program:
   - Govt 050 Introduction to American Government
5. One of the six courses must be a capstone experience (a seminar, an internship, or a directed research project):
   - Phil 270 Seminar: Philosophy of Law
   - Govt 291 Seminar: Lawyers and American Politics
   - Legal Internships in a variety of academic departments
   - Directed Research or Special Projects in a variety of academic departments.
6. No more than two of the courses can also be counted for the student's major or minor requirements, or for another concentration.

Courses

Gateway course:

Govt 050 - Introduction to American Government

General courses:

IDND 038 Trial Advocacy
Phil 108 Privacy in Law and Ethics
Phil 132 Social and Political Ethics
Mgmt 178 Business Law
Eng 196/Com 196 Oral Advocacy
Hist 217 Reconstruction: America after the Civil War
Phil 221 Social and Political Philosophy
Hist 223 Civil Rights Movement
Soc 250 Criminology
Govt 253 U.S. Judicial Politics
Govt 257 Comparative Courts and Law
Eng 257/Com 257 Language at Issue
Soc 262 Sociology of Law
Soc 263 Deviance and Social Control
Govt 272/Hist 239 Con Law: Civil Liberties
Govt 273/Hist 240 Con Law: Government Powers
Govt 276/ES 276 Environmental Law

Capstone courses:

Phil 270 Philosophy of Law
Govt 291 Lawyers and American Politics

Cross-listing of Courses

All courses in the concentration are cross-listed under the LAS designation. For more details about a specific course, see the catalog listing under the participating home department.

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for Directed Research or Special Projects.

Internships

Participating faculty sponsor a variety of undergraduate legal and law-related internship experiences. Students interested in these opportunities should inquire with the internship coordinator in the Office of Career Services.

PEACE STUDIES

Program Faculty

Joseph H. deRivera, Ph.D., *program director: emotions, social psychology and the prevention of war*

Patrick G. Derr, Ph.D.: *ethics, philosophy of science, hazards management*

Deboráh Dwork, Ph.D: *Holocaust studies, history of genocide*

Cynthia Enloe, Ph.D.: *women and politics, militarization, comparative politics*

Janette Greenwood, Ph.D: *American social history*

Robert C. Hsu, Ph.D.: *economic development, comparative economic systems, international economics.*

George Lane, M.A.: *U.S. foreign policy, arms control, Middle East history and politics*

Douglas J. Little, Ph.D.: *U.S. diplomatic history, America since 1900, modern Latin America, Middle East*

Robert J. Ross, Ph.D.: *urban political economy, political sociology, social movements*

Ann Seidman, Ph.D.: *international division of labor, South Africa*
Shelly Tenenbaum, Ph.D.: *race and ethnicity, Holocaust studies, social stratification*
Barbara P. Thomas-Slayter, Ph.D.: *rural organization, women and public policy, peasant behavior*
Robert Vitalis, Ph.D.: *international relations, political economy, Middle East politics*
Theodore H. Von Laue, Ph.D. *(emeritus): global perspectives in history*
Walter E. Wright, Ph.D.: *ethics, philosophy of religion*

Program and Concentration

The Peace Studies Program is concerned with analyzing the alternative ways that may be used to transform individual behavior, national policy, and human institutions in order to promote peace and justice in the world. The program promotes discussion and study on issues of conflict and its management, citizen responsibility, cross-cultural understanding, environmental protection, human rights, international security, social justice, and the building of community. The program sponsors research, public service, and forums on peace and international issues.

Undergraduates may concentrate in peace studies to complement any major. Students may also design a major in peace studies via the University's self-designed major. The concentration draws together the knowledge of several disciplines in the context of the search for peace, while enhancing students' critical thinking skills and awareness of the connections between local and global issues. Departments and programs represented in peace studies include economics, government, history, international development, philosophy, psychology, and sociology.

Course work, research, and internships enable students to apply their theoretical understanding of the issues of peace to practical situations. Students with a concentration in peace studies are prepared to enter careers and graduate study in such fields as public policy, international development, labor relations, environment and ecology, and international relations. They are prepared to take an active role in shaping constructive policies in the public sector and civil society.

The Peace Studies Office provides information on internships, jobs, and careers; a library; and a computer link to international conferences and bulletin boards.

Requirements

Students who concentrate in peace studies take 110 Introduction to Peace Studies and at least one course from each of three arenas of peace making: the personal, the societal, and the global. They may select a fifth elective course from any of the three areas or from one of the electives listed below or in the Consortium Peace Studies catalogue. Finally, students take either an internship or a directed reading, research, or capstone course (bringing the number of courses required for the concentration to six, at least two of which should be at the 200 level).

Courses

The following is a list of Clark's peace studies course offerings. Students may petition the Peace Studies Committee to receive concentration credit for courses other than those listed below. More information can be obtained from the Peace Studies Office, 201 Jonas Clark. (508) 793-7663.

110 AN INTRODUCTION TO PEACE STUDIES AND THE PSYCHOLOGY OF PEACE

Can we manage the conflict in our personal life, our society, our world, so it results in development and justice rather than oppression and destruction? We consider four paths towards peace: strength, negotiation, justice, and personal transformation. Students are asked to develop their own stance towards achieving peace, to act on the basis of that stance, and to report what they discover. Mr. deRivera/Offered every year

Personal Courses

050 LOCAL ACTION, GLOBAL CHANGE

See International Development 050. Mr. Ford and Ms. Thomas-Slayter/Offered every year

170 SOCIAL PSYCHOLOGY

See Psychology 170. Mr. deRivera/Offered every year

246 PSYCHOLOGY OF PEACEMAKING
See Psychology 246. Mr. deRivera/Offered every other year

150 PHILOSOPHY OF RELIGION
See Philosophy 150. Mr. Wright/Offered every year

273 AIDS: ETHICS AND PUBLIC POLICY
See Philosophy 273. Mr. Derr/Offered every year

Societal Courses

130 ADVANCED ISSUES IN MEDICAL ETHICS
See Philosophy 130. Mr. Derr/Offered every semester

132 ENVIRONMENTAL ETHICS
See Philosophy 132. Mr Derr/Offered every year

223 THE CIVIL RIGHTS MOVEMENT
See History 223. Ms. Greenwood/Offered every other year

243 POLITICAL SOCIOLOGY
See Sociology 243. Mr. Ross, Staff/Offered every year

250 U.S. NATIONAL SECURITY POLICY MAKING
See Government 250. Mr. Vitales/Offered every other year.

252 RACE AND AMERICAN SOCIETY
See Sociology 252. Ms. Tenenbaum/Offered every year

265 SOCIAL MOVEMENTS
See Sociology 265. Ross/Offered periodically.

Global Courses

125 DEVELOPMENT PROBLEMS
See International Development 125. Ms. Thomas-Slayter/ Offered every year

145 AMERICA AND THE CHANGING WORLD ECONOMY
See Government 145. Mr. Vitales/Offered every year

210 PALESTINE, ISRAEL AND THE ARAB CONFLICT
See Government 210. Mr. Vitales/Offered every other year.

232 SOCIAL JUSTICE AND DEVELOPMENT
See International Development 232. Staff/Offered every other year

240 PROGRESS FOR THE 21ST CENTURY
See Government 287. Mr. Lane/Offered every year

245 U.S. FOREIGN POLICY—MIDDLE EAST
See Government 245. Mr. Lane/Offered every year

272 INTERNATIONAL DIVISION OF LABOR
See International Development 272. Ms. Seidmay/Offered periodically

289 ADVANCED STUDIES IN INTERNATIONAL RELATIONS
See Government 289. Mr. Vitalis, Mr. Klein, Mr. Little/Offered every year

Electives

176 COMPARATIVE ECONOMIC SYSTEMS
See Economics 176. Mr. Hsu/Offered every year

237 ARAB STATE SYSTEMS
See Government 237. Mr. Vitales/Offered every other year

278 THE HISTORY OF THE HOLOCAUST
See History 278. Ms. Dwork/Offered every year

261 WOMEN AND MILITARISM
See Government 261. Ms. Enloe/Offered every other year

Internships, Directed Readings, Research and Capstone Courses

285 CAPSTONE: SPECIAL TOPICS IN PEACE STUDIES
The content of this course varies, and may be taught in conjunction with a directed reading or with other peace studies courses. Topics include theories and techniques of conflict resolution; strategies and effectiveness of various interest groups working for peace; nonviolent resistance and other approaches to peacemaking; and the connection between interpersonal, intergroup, cultural, and international dimensions of conflict and peacemaking. Staff/Offered periodically

299 SEC. 9 DIRECTED READINGS IN PEACE STUDIES
May be taken with any member of the Peace Studies faculty.

299 SEC. 9 PEACE STUDIES INTERNSHIP
Students concentrating in peace studies are encouraged to consider an internship for their sixth concentration requirement. Peace studies

offers internships periodically in peer mediation, conflict resolution training, and other skills. The Peace Studies Office has information about internship opportunities with peace and justice organizations in Worcester, Boston, New York, Washington, D.C., London, and elsewhere.

RACE AND ETHNIC RELATIONS

Principal Advisors

Beverly Grier, Ph.D., *coordinator: African politics, African-American politics, child labor, land and politics*
Janette Greenwood, Ph.D.: *American social and African-American history, history of the South*
Shelly Tenenbaum, Ph.D.: *Jewish studies, race/ethnicity, social stratification*

Participating Faculty

Maria Acosta Cruz, Ph.D.: *Spanish-American literature, Baroque literature, postmodern literature, comparative literature, contemporary literary theory*
Parminder Bhachu, Ph.D.: *urban anthropology, diaspora cultures, immigration and migrant identities, ethnicities, nationalism, gender*
Daniel R. Borg, Ph.D.: *modern German history, modern European history, totalitarianism*
Paul F. Burke, Ph.D.: *ancient history*
Martyn J. Bowden, Ph.D.: *cultural humanistic and historical/urban/social geography*
Sarah J. Deutsch, Ph.D.: *American social history, American women*
Carol C. D'Lugo, Ph.D.: *Spanish and Spanish-American Literature, literary theory*
Deboráh Dwork, Ph.D.: *modern European history, history of the Holocaust*
Cynthia H. Enloe, Ph.D.: *women and politics, militarization, Asian politics, British politics, ethnic and racial politics*
William Ferguson, Ph.D.: *Spanish Golden-Age literature, 20th-century Hispanic literature*
Everett Fox, Ph.D.: *Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*
Susan Hanson, Ph.D.: *urban/social geography transportation, research methods, geography and gender*
Fern L. Johnson, Ph.D.: *sociolinguistics, feminist linguistics, communication*
Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers, autobiography, French and francophone cultural studies*
Constance M. Montross, Ph.D.: *Spanish-American literature*
Winston Napier, Ph.D.: *African-American literature, critical theory*
Ron Richardson, Ph.D.: *European cultural history, Black cultural identity, British history and empire*
Robert J.S. Ross, Ph.D.: *urban studies, political sociology, political economy, social policy*
Robert J. Vitalis, Ph.D.: *international relations, race and international relations, political economy, Middle East politics*

Undergraduate Program

Race and Ethnic Relations is an interdisciplinary concentration that enables students to examine relations within and between racial and ethnic groups primarily in the United States. The concentration brings together a wide range of courses in the humanities and social sciences that allow students to compare experiences across racial and ethnic groups. The concentration also allows students to compare the U.S. experience with that of other racially and ethnically diverse countries in Europe, the Middle East, Africa, and Asia, past and present.

Requirements

Students fulfilling the Race and Ethnic Relations Concentration are required to take a minimum of six courses. Five of the six courses must be U.S.-based courses; one must focus on a country or region outside the U.S.

1. One course must be History 016 Race and Ethnicity in American History, a humanities course. This course serves as the introductory course for the concentration.
2. Two additional courses in the humanities (classics, English, foreign languages and literature, history). One of these courses must be a literature course.

3. Three courses in the social sciences (cultural and global processes, geography, government, sociology).
4. A minimum of three courses must be at the 200-level. One course must be an advanced seminar approved by the student's advisor. The advanced seminar serves as the capstone experience.
5. One course whose focus is a country or region other than the U.S.

Courses

Introductory Course

016 Race and Ethnicity in American History
See HIST 016. Ms. Greenwood/Offered every year

Humanities Courses (Choose a minimum of two courses)

021 Voices from Slavery
See HIST 021. Ms. Greenwood/Offered periodically

117 Fieldwork in the Hispanic Community
See SPAN 117. Ms. Montross/Offered every semester

127 Crossing Boundaries
See Comp. Lit. 125. Ms. Kaufmann/Offered periodically

182 African-American Literature I
See ENGL 182. Mr. Napier/Offered every year

183 African-American Literature II
See ENGL 183. Mr. Napier/Offered every year

191 Language Diversity in the U.S.
See ENGL 191. Ms. Johnson/Offered every year

205 History of the American West
See HIST 205. Ms. Deutsch/Offered every other year

211 Native-American History Through Autobiography
See HIST 211. Ms. Deutsch/Offered every other year

212 U.S. Urban History
See HIST 212. Ms. Deutsch/Offered periodically

221 African-American History
See HIST 221. Ms. Greenwood/Offered every other year

222 History of the South
See HIST 222. Ms. Greenwood/Offered every other year

223 History of the Civil Rights Movement
See HIST 223. Ms. Greenwood/Offered every year

274 Imagining Black Identities
See HIST 274. Mr. Richardson/Offered periodically

291 Harlem Renaissance Seminar
See ENGL 291. Mr. Napier/Offered every year

Social Science Courses (Choose a minimum of three courses)

142 Cities and Culture: The American City
See GEOG 142. Mr. Bowden/Offered every year

170 Divided Cities, Connected Lives
See GEOG 170. Ms. Hanson/Offered every other year

203 American Jewish Life
See SOC 203. Ms. Tenenbaum/Offered every other year

224 African-American Politics
See GOVT 224. Ms. Grier/Offered every year

225 Seminar in the History of African-American Women
See GOVT 225. Ms. Grier/Offered every year

246 Social Planning and Social Policy
See SOC 246. Mr. Ross/Offered every other year

247 Cities and Suburbs
See SOC 247. Mr. Ross/Offered every year

252 Race and American Society
See SOC 252. Ms. Tenenbaum/Offered every year

Courses on Race and Ethnicity Outside the U.S. (Choose a minimum of one course)

103 Africa and the World
See HIST 103. Ms. Grier/Offered every year

124 ETHNICITY AND NATIONALISM IN MODERN EUROPE: A COMPARATIVE PERSPECTIVE
See HIST 124. Mr. Borg/Offered every year

161 HISTORY OF INDIA
See HIST 161. Mr. Richardson/Offered periodically

174 THE JEWISH EXPERIENCE
See HIST 174. Mr. Fox/Offered every year

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS
See GOVT 178. Ms. Grier/Offered every year

210 ISRAELI-ARAB CONFLICT
See GOVT 210. Mr. Vitalis/Offered every other year

228 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER
See GOVT 228. Ms. Enloe/Offered every other year

239 HISPANIC-CARIBBEAN FICTION
See SPAN 239. Ms. Acosta-Cruz/Offered every other year

245 HISPANIC-AMERICAN SHORT STORY
See SPAN 245. Mr. Ferguson, Ms. D'Lugo/Offered every other year

254 EMPIRE AND RACE IN BRITISH HISTORY
See HIST 254. Mr. Richardson/Offered periodically

262 JEWS AND CHRISTIANS IN THE ANCIENT WORLD
See ANC CIV 262. Mr. Burke/Offered every other year

263 AFRICANS AND ASIANS IN EUROPEAN HISTORY
See HIST 263. Mr. Richardson/Offered periodically

271 RACE, MIGRATION, GENDER, AND ETHNICITY
See CICP 271. Ms. Bhachu/Offered every other year

276 MODERN JEWISH HISTORY AND THOUGHT
See HIST 276. Staff/Offered every other year

278 HISTORY OF THE HOLOCAUST
See HIST 278. Ms. Dwork/Offered every year

289 RACE AND INTERNATIONAL RELATIONS
See GOVT 289. Mr. Vitalis/Offered every year

Independent Study Courses

299 SEC. 1 DIRECTED READINGS
Staff/Offered every year

299 SEC. 5 SPECIAL PROJECTS
Staff/Offered every year

299 SEC. 9 INTERNSHIP
Staff/Offered every year

WOMEN'S STUDIES

Program Faculty

Margarete Arndt, D.B.A. *Graduate School of Management: health care management, women in the health care system*

Maria Acosta Cruz, Ph.D. *Department of Foreign Languages and Literatures: Latin-American literature and comparative literature*

Sandra T. Azar, Ph.D. *Department of Psychology: maternal thinking, child abuse, parenting and the legal system*

Thomas Berninghausen, Ph.D. *Department of English: 19th-century American women writers, contemporary womens fiction, gender studies*

Parminder K. Bhachu, Ph.D. *Henry R. Luce Professor of Cultural Identities and Global Processes: urban anthology, international migration and immigration, race, ethnicity, gender, culture, class and consumption, multiculturalism*

Marcia Butzel, Ph.D. *Department of Foreign Languages and Literatures: film and cultural studies, comparative arts*

Carol C. D'Lugo, Ph.D. *Department of Foreign Languages and Literatures: Latin-American literature, Spanish culture, Mexican women writers*

Judith Wagner DeCew, Ph.D. *Department of Philosophy: ethics, philosophy of law, social and political theory*

Sarah J. Deutsch, Ph.D. *Department of History: U.S. social history, U.S. women*

Linda Dusman, D.M.A. *Department of Visual and Performing Arts: composition, theories of performance, music reception*

Jacque L. Emel, Ph.D. *Department of Geography: hydrology, social theory and nature, womens roles in mineral industry restructuring, feminist critiques of the resource state*

Cynthia H. Enloe, Ph.D. *Department of Government and International Relations: women and politics, militarization, Asian and British politics, ethnic and racial politics*
Patricia M. Ewick, Ph.D. *Department of Sociology: research methods, gender, law, criminology*
Rachel Joffe Falmagne, Ph.D. *Department of Psychology: women, psychology and society, language and thought, semantic development, reasoning*
SunHee Kim Gertz, Ph.D. *Department of English: western European medieval literature, theory, characterization of women*
Bonnie Lee Grad, Ph.D. *Department of Visual and Performing Arts: 19th-and 20th-century U.S. American and western European painting, history of landscape art, women artists*
Janette T. Greenwood, Ph.D. *Department of History: African-American history; southern history*
Beverly C. Grier, Ph.D. *Department of Government and International Relations: comparative politics, African politics, politics of land, womens and childrens labor*
Susan Hanson, Ph.D. *Department of Geography: urban-social geography, transportation, local labor markets*
Serena S. Hilsinger, Ph.D. *Department of English: modernist literature, women writers*
Fern L. Johnson, Ph.D. *Department of English: language, communication, and culture, with special emphasis on gender and race, feminist linguistics*
Dorothy Kaufmann, Ph.D. *Department of Foreign Languages and Literatures: contemporary French feminism, women writers, comparative cultural studies*
Sharon Perlman Krefetz, Ph.D. *Department of Government and International Relations: urban politics, suburban politics, women and politics*
Deborah M. Merrill, Ph.D. *Department of Sociology: aging, family, medicine, and demography*
Dianne E. Rocheleau, Ph.D. *Department of Geography: gender, political ecology, landscape, forestry, environment and development*
Paul S. Ropp, Ph.D. *Department of History: Chinese social and intellectual history, women in China*
Christina Hoff Sommers, Ph.D. *Department of Philosophy: history of ethics, contemporary moral theory*
Shelly Tenenbaum, Ph.D. *Department of Sociology: Judaic studies, race/ethnicity, social stratification, Jewish women in the U.S. and Europe*
Barbara P. Thomas-Slayter, Ph.D. *Program of International Development: community organization, Third World women and public policy, rural development, gender and environment*
Virginia M. Vaughan, Ph.D. *Department of English: Shakespeare, Renaissance drama, non-dramatic Renaissance literature*

Undergraduate Program

The Womens Studies Program is broadly interdisciplinary and richly interconnected. It offers an undergraduate concentration as well as a Ph.D. degree and has been in existence since 1979. Womens Studies stresses the diversity of womens experiences and the importance of social constructs and contexts such as gender, ethnicity, race, and class, to the understanding of individual and collective experience, past and present.

Concentration

The program offers a concentration in womens studies, which may be taken along with any departmental major. "Womens Studies Concentration" will appear on the student's graduating transcript along with their major. Interested students may also design a womens studies major, in consultation with the Dean of the College, the director of womens studies, and womens studies faculty members.

Requirements

A major in an established department or a self-designed major.

SOC/WS 110: Introduction to Womens Studies/Sociology of Gender (WS Core Course)

Four additional courses listed as part of the Womens Studies Program (It is recommended that these include a variety of disciplinary approaches. Two of these courses should be at the 200 level.)

An internship, special project, or advanced research seminar in womens studies.

The program encourages extensive and intensive consultation between concentrators, the director, and other members of the Womens Studies faculty.

Students submit a brief, but specific, proposal to the Womens Studies Program before the internship or project begins. This proposal, signed by the student's faculty advisor, includes a description of the work the student proposes to do, and also describes the academic component the student and the student's advisor have formulated (readings or written work, periodic discussions with faculty, etc.)

The Womens Studies program director must review and approve proposals in order to grant concentration credit for these projects and/or internships.

Graduate Program

The Ph.D. in Womens Studies is designed for future academics as well as for professionals in public policy, government, and the private sector. Those with degrees in traditional disciplines who wish to broaden their approach along feminist lines are encouraged to apply, as well as those already holding B.A. or M.A. degrees in Womens Studies.

The goals of the Ph.D. program are to provide a foundation in Womens Studies as an integrated, cohesive discipline and to enable students to gain competence in focused segments of that discipline. The core of the program includes a team-taught, cross-disciplinary course in the foundations of feminist inquiry and methodology, and a proseminar and research colloquium. Students also take seminars and courses to acquire in-depth proficiency in one of three interdisciplinary areas.

Students with different interests may formulate a program of studies consonant with their goals in consultation with an advisory committee. Overall course work must ensure breadth of interdisciplinary knowledge, as well as depth of understanding in the area of chosen expertise.

The Womens Studies Ph.D. program is designed primarily for full-time students, but some part-time students will be accepted selectively. Students who want to consider a part-time schedule should let the program director know as soon as possible.

Advisory Committee

For each entering student, the Ph.D. Curriculum Committee will assign an advisory committee composed of two Womens Studies faculty from different departments. One function of the advisory committee is to guide students in the formulation of their scholarly interests and to develop a program of studies appropriate to those interests. The committee will provide clearance on particular courses or arrangements.

General requirements of the graduate program (Total: 16 Credits)

The Core:

WS 300 Graduate Proseminar in Womens Studies (two credits)
WS 301 Foundations of Feminist Inquiry (two credits)
WS 302 Graduate Research Colloquium in Womens Studies (one credit)

Other Requirements

Three-year residency required.

A working proficiency in one or more languages relevant to the student's areas of scholarship may be required, based upon the recommendation of the student's advisory committee.

A minimum of 11 credits in addition to the five core credits described above. A full-time Ph.D. student normally takes three or four credits per semester. Some of these will be in the form of directed readings or independent research courses.

The student's concentration will govern the particular sequence of courses taken. Overall course work must ensure breadth of interdisciplinary knowledge as well as depth of understanding in the area of chosen expertise. A minimum of eight core courses must be taken in Womens Studies. For courses outside of Womens Studies, approval must be obtained from the Ph.D. Committee. Normally, no more than five courses may be taken at the 200 level; for these, additional work must be completed, as determined by the instructor and approved by the student's advisory committee.

Teaching experience. Students are encouraged to gain teaching experience during their doctoral studies.

M.A. qualifying paper. By the end of the second year of full-time residency (or its equivalent for part-time students), a student must produce a masters qualifying paper. If the student opts for research work, the qualifying paper is expected to have the same scope as a publishable journal article. To serve as an M.A. qualifying paper, an arts project will be expected to make a roughly equivalent contribution.

If a student enters with an appropriate master's degree and M.A. thesis, the student may petition the Ph.D. committee to waive the requirement for the M.A. Qualifying Paper.

Admission to the program is for the Ph.D., and normally all students will continue through to a Ph.D. There is no separate Womens Studies M.A. program. However, if a student wishes to receive the degree and has completed the requirements, an M.A. will be awarded.

In the third year, the student will take the oral comprehensive exam, the successful completion of which is required for the Ph.D. candidacy. If the student does not pass the examination, she/he may take it a second time.

A Ph.D. proposal will be written in conjunction with the student's Ph.D. committee (three members, at least two of whom should be from the Womens Studies faculty) and approved by the Womens Studies Ph.D. Committee. No longer than 15 double-spaced pages, it should explain the student's working hypothesis, summarize relevant critical literature and evidence to be used, describe and justify the research methodology, while also providing examples, bibliography, projected chapter divisions (or other form of the plan) and time schedule.

The Ph.D. is a substantial, independently conducted, and intensively researched work of scholarship.

Upon approval of the Ph.D. dissertation by the student's committee, the students will present findings to members of their dissertation committee; this presentation will be open to the Clark community and guests. The committee, along with other Womens Studies faculty members present, will evaluate the student's performance. The primary reader will combine this evaluation with the thesis committee's evaluation of the dissertation and send the final recommendation for the Ph.D. degree to the Dean of Graduate Studies and Research.

Where appropriate, a student may construct a program and dissertation topic drawing on a specific traditional discipline, with clearly interdisciplinary Womens Studies spirit.

Leaves of Absence

At the request of the student, a leave of absence may be granted from the graduate program for personal reasons or in order to pursue scholarly activity or training at another institution. A leave normally will be given for no more than one year. Only under unusual circumstances will a leave be extended. Students who are not behind in program requirements and who wish to be considered for financial assistance upon return from a leave will have to notify the program in writing of the expected return by January 15.

Grading

Anything lower than a B- is not acceptable and the course must be repeated. The student must maintain a B average. A final grade of F constitutes grounds for withdrawal from the program.

A Pass/No-Record (P/NR) grading option may be elected, whereby P signifies that the student performed at a B- or above level, as determined by the letter grade handed in by the faculty member. Students may take a maximum of three courses on a P/NR basis, one of these being the research colloquium.

Uncompleted courses in the spring of any given year must be completed by December 1 of the same year. Incompletes given in the fall semester must be completed by September 1 of the following year.

Courses

In addition to courses offered by the undergraduate college and listed below, Womens Studies concentrators may enroll in selected courses offered by the College of Professional and Continuing Education (COPACE).

COPACE provides a diverse list of courses that is revised each year and is enriched by collaborations with various cultural institutions in Worcester. Contact the registrar in COPACE directly (508-793-7217) for current academic year and summer offerings.

110 INTRODUCTION TO WOMENS STUDIES
Provides a broad, general overview of sociology, its areas of study, methods of inquiry, and conceptions and analyses of society. Encourages students to gain a sociological perspective on human conduct. Staff/Offered every year

128 FAMILY AND SEX ROLES IN CROSS-CULTURAL PERSPECTIVE; AN ANTHROPOLOGICAL APPROACH
Examines families and gender roles in cross-cultural perspective, using examples from people in Africa, India, China, the Americas, and the Philippines. Topics include kinship and gender in evolutionary perspective, social construction of gender, social reproduction and gender roles, functional and structural analyses of kinship patterns, division of labor, and politics of gender inequality. Staff/Offered periodically

133 FICTION BY WOMEN WRITERS, 1688-1899
Authors studied include Behn, Burney, Austen, Bronte, Eliot, Gilman, and Chopin. The emphasis is on these female authors and their characters' reactions to, and interactions with, the atmospheres and landscapes of their respective ages. Prerequisite: verbal expression course. Ms. Hilsinger/Offered every other year

134 MODERN FICTION BY WOMEN WRITERS
Covers works written in the 20th century that provide portraits of women in all stages and conditions of life, rendered in a broad spectrum of fictional techniques. The selection of authors and work is based on three major concerns: that it represent a chronological span, that it preserve a certain thematic coherence, and that it allow ample opportunity for discussion of aesthetic matters. Authors include Stein, Mansfield, Woolf, Bowen, Hurston, Porter, Sarton, and Naylor. Prerequisite: verbal expression course. Ms. Hilsinger/Offered every other year

136 GENDER, SPACE, AND ENVIRONMENT
Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use and control of space and resources in a variety of environments past, present, and possible. Regional focus on New England.
Ms. Rocheleau/Offered every year

150 INTRODUCTION TO MEDIEVAL LITERATURE
Introduces Western European medieval literature, touching on classical roots and contemporary counterparts in the process. Themes vary each year and include: rhetoric and romance in medieval literature; narratology; the shrinking stage in Western literature; the epic hero and the lady lover; and Ovid in the Middle Ages. Students may repeat the course provided they study a different theme each time. Ms. Gertz/ Offered every year

184 LANDSCAPE AS REVELATION: ART OF GEORGIA O'KEEFE
Examines cultural and geographic issues through focus on Georgia O'Keefe's work. Like many 20th century modernists, she turned away from the technological urban world to search for elemental landscapes. From her experiences of the southwestern desert and the rituals of Hispanic and native American cultures, she forged a spiritual art with moral importance that was unique in its time. Readings include Thoreau, Emerson, Paul Tillich, Willa Cather, Mabel Dodge Luhan, Ruth Benedict, and Mircea Eliade. Ms.Grad/Offered every year

191 LANGUAGE DIVERSITY IN THE U.S.
Focuses on the ways in which language use and attitudes about language differ in relation to race, ethnicity, gender, and socio-cultural background. Considers African-American English, male and female language differences, ethnic and social class markers in language, and bilingualism. Topics are approached from sociolinguistic and communicative perspectives. Ms. Johnson/Offered every year

208 COMPARATIVE POLITICS OF WOMEN

Explores the roles, priorities, strategies, and theories of women in the politics of industrialized developing countries. Causes for changes or lack of genuine changes in womens political influence are investigated to shed light on those countries' political systems. The politics of industrialization, revolution, sexuality, labor, cross-race alliances, and the family are discussed. One or more previous courses in government or in womens studies is strongly advised. Ms. Enloe/Offered every other year

212 WOMEN AND SOCIAL CHANGE

Examines assumptions and theories about the roles of women from multidisciplinary, cross-national, and cross-cultural perspectives, emphasizing the Third World. Explores issues of division of labor between the sexes; relationships among class, gender, and ethnicity; the household economy; women's roles in economic development; the impact of social policies of women's lives; the internationalization of capital and womens work; and in politics. Materials focus on womens experience in Africa, Asia, and Latin America. Ms. Thomas-Slayter/ Offered periodically

213 GENDER AND THE CITY IN THE U.S.

Focusing on the 19th and 20th centuries, the course examines where urban life for men and women diverged and where it met. Readings on men, women, and urban space, reform movements, utopian ideals, and other topics are followed by student research projects using local resources. Ms. Deutsch/Offered periodically

215 20TH-CENTURY FRENCH AND FRANCOPHONE WOMEN WRITERS

Studies of major works of fiction, theory, and social criticism as they question and illuminate each other. Readings include texts by Colette, Simone de Beauvoir, Helene Cixous, Marguerite Duras, Monique Wittig, Assia Djebar, Fatima Mernissi, and Mariama Ba. Ms. Kaufmann/Offered every other year

219 HISTORY OF AMERICAN WOMEN

Examines the female experience in the U.S., focusing on issues of power, race, ethnicity, and class, and concepts of work, family, and gender, with the ramifications for the world of both sexes. Fulfills the historical perspective requirement. Ms. Deutsch/Offered every year

221 FEMINIST THEORY

An investigation of topics in recent feminist philosophical literature. Topics and authors vary each year. Attention is given to the different perspectives included in contemporary feminist theory. Prerequisite: two courses in philosophy or permission of instructor. Ms. Sommers/Offered periodically

224 AFRICAN-AMERICAN WOMEN

Explores the relationship between African-Americans and the U.S. political system, emphasizing responses of executive, legislative, and judicial branches, major political parties, and mass media to the African American quest for equality. Examines the impact of the Congressional Black Caucus, big city majors, and debates over affirmative action, crime, and welfare. Ms. Grier/Offered every year

228 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER

Explores the politics of ethnicity and race for groups as different as Asian-Americans, black Britons, South African Afrikaners, Latin-American Indians, Bosnians, and others in the politics of industrialized and Third-World countries. The political interactions of ideas about masculinity and feminity with race, ethnicity, and the state power are featured. Previous study of international development, comparative politics, history, sociology, or womens studies recommended. Ms. Enloe/ Offered every other year

236 WOMEN IN HISPANIC LITERATURE

A study of the presence of women in Hispanic literature, with special emphasis on the 20th century. Discussion includes alienation, identity, family structure, violence against women, and problematical relationships to the patriarchal social order. Readings include major works from both the Spanish and Latin-American tradition. Conducted in Spanish. Prerequisite: Spanish 131. Staff/Offered every other year

237 FEMINISM, NATURE, AND CULTURE

An in-depth study of feminist theories of science, rationality, and morality as they apply to nature-society relations. The cultural politics of nature across time and space are examined. Film, literature, government reports, and academic writing are used to show how images and truths about nature and society are constructed. Ms. Emel/Offered every other year

242 FEMINIST LITERARY THEORY/SEMINAR

Focuses on the canon of postmodern feminist literary theory produced by the African-American feminist/womanist school, the ecriture feminine school, the Canadian Freudian school, and the American generalist school. Target issues include authorial power and revisionary identities, body as text, deconstruction as feminist practice, principles of psycho-political liberation, racialized gender, and resistance to the universalizing traditions of phalloculturalism. Mr. Napier/Offered every other year

244 GENDER, WORK, AND SPACE/SEMINAR

How do gender, race, class, and ethnicity propel people into certain types of work? What role do location and space play in shaping and sustaining such divisions? Why do women, youth, and minorities hold jobs that are distinctly different from other workers jobs? How can a geographic understanding of gender, class, and ethnicity help explain the current restructuring of the global economy? How effective have women been (or can they be) in organizing to improve their economic and social status? Materials focus on local and global urban industrialized settings. Ms. Hanson/Offered every other year

247 WOMEN IN SOCIETY

Examines women's psychological functioning and development in broad societal context to foster a broadly based understanding of, and clarify interactions between, the cultural, historical, economic, and institutional factors. Discusses anthropological and sociological examinations of womens cultural status in various societies, and of economic, historical, and symbolic factors impinging on the individual. Studies women's personal development, life issues, intellectual functioning, power, and roles in society. Ms. Joffe Falmagne/Offered every year

248 WOMEN AND ART

Explores the history of women artists and the nature of their professional involvement in the art institutions of their day. It explores women as subjects in art, femininity and masculinity as cultural constructs, the concept of genius as myth, and the nature of objectivity. Readings include Linda Nochlin, Thalia Gouma-Peterson, Lucy Lippard, Rozsida Parker and Griselda Pollack, and John Berger. Ms. Grad/Offered periodically

249 SIGNS AND CROSSROADS: SEMIOTIC THEORY AND PRACTICE

Approaches semiotic theories comparatively from a historical point of view, as well as from a theoretical point of view that breaks them down into three different schools (American, French, and Italian). In addition to learning about semiotic theories, the student is also able to practice them in a comparative mode; use in areas such as literature, film, advertising, and drama is address and analyzed. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE

Emphasizes literary theory as well as literature of the Middle Ages. Attempts to achieve a sense of medieval literary culture and uses texts from Europe and Great Britain as well as from the classical period. Texts vary each time the course is offered. Ms. Gertz/Offered every other year

251 CHAUCER/SEMINAR

Guides the student through Book of the Duchess, The House of Fame, The Parlement of Fowls, some Canterbury Tales, and Troilus and Criseyde. All texts are taught in Middle English, and selections may vary. (No prior knowledge of Middle English required.) Ms. Gertz/Offered every other year

253 CULTURE AND CONSUMPTION IN LOCAL AND GLOBAL CONTEXTS

Focuses on consumption as it is determined, gendered, classed, and impacted upon politically, by individual consumers and capitalist producers. It emphasizes the ways people and groups define themselves through the use of distinctive symbols and consumer products. Focuses on the prime actors of consumption, and who consumes what. Consumption and consumer cultures and commodities will be examined as they are locally, regionally, and nationally determined through the codes of class, ethnicity, and gender. Central is the interplay between the world market and cultural identities, between local and global process, and between consumption and cultural strategies to discover the consumer subcultures that are innovated in local contexts. Students conduct a small ethnographic project on consumer patterns, products, or cultures. Ms. Bhachu/ Offered every other year

254 East Meets West - Women Mirrored in East and West

Probes how women are represented in translated, primary texts from 17th- and 18th- century China and from 12th through 14th century medieval western Europe. Secondary texts and illustrations will be examined theoretically, literally, and historiographically. Explores how representations work with stereotypes and whether they have relevance today. Prerequisits: An Asian or western literature course. Ms. Gertz and Mr. Ropp/Offered periodically

255 The Family

Examines the assumed collapse of the American family and the causes of this collapse. Also examines challenges to the new family, such as dual-career couples and the resulting division of labor in the home. Working class, African-American, and homeless families are also discussed. Ms. Merrill/Offered every year

256 Studies in the Renaissance

Explores the poets, playwrights, and prose writers who shaped the English literary Renaissance. Authors may include Thomas More, Philip Sidney, Edmund Spenser, Christopher Marlowe, Mary Wroth, John Donne, William Shakespeare, Elizabeth Cary, George Herbert, Ben Johnson, Thomas Middleton, and John Webster. Their writings are placed in the sociopolitical context of the 16th and 17th centuries. Prerequisite: permission of the instructor. Ms. Vaughan/Offered every other year

258 Women in Jewish Culture

Uncovers the experience of Jewish women, using gender analysis to enrich understanding of Jewish life. Critical questions about the status of women in texts, rituals, and communal practices from the biblical period to the present will be raised. Ms. Tenenbaum/Offered every other year

261 Women and Multiculturalism in a Comparative Politics Perspective

Is the growth in a country's military influence affected by its ideas about masculinity and femininity? What do womens experiences in wartime and peacetime reveal about military politics? What do we expose about militaries when we look behind the government's policies to use women as mothers, wives, workers, or prostitutes? Do racial and economic differences shape a military's sexual division of labor? Previous government or Womens Studies courses recommended. Limited to juniors, seniors, and graduate students. Ms. Enloe/Offered every other year

271 Race, Migration, Gender, and Ethnicity

Examines migration patterns and the impact of migration on ethnicity from the perspectives of gender and race. Focuses on the impact of the economic on the cultural, as examined through the impact of migration and women's engagement in the wage-labor market. Explores changes in the sexual division of labor within the household and new cultural patterns for women. Emphasis is placed on the importance of class, ethnicity, and race in the formation of ethnic cultures, and formation of ethnic identities as they are influenced by local economic and political factors. Ms. Bhachu/Offered every other year

275 Works of Virginia Woolf

Intensive study of Virginia Woolf's major novels, short stories, and essays. Emphasizes the artistic process and the vision of Woolf's work and considers such issues as Woolf's feminism and critical stance. Prerequisite: permission of the instructor. Ms. Hilsinger/Offered every other year

276 POLICIES, PROJECTS, AND STRATEGIES FOR CHANGE: A FOCUS ON GENDER

Explores gender in determining roles, responsibilities, rights, and opportunities in developing countries. Considers methodologies of gender analysis for relevance to national policies and programs and usefulness to the design, implementation, monitoring, and evaluation of projects. Focus on community institutions and organizations and their potential roles in alleviating poverty and fostering sustainable development. Ms. Thomas-Slayter/Offered every year

277 GENDER, RESOURCES, AND DEVELOPMENT

Considers the gender division of control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of natural resources in developing countries. Readings, lectures, and discussion focus on the distinct perspectives and concerns of women and men as actors in natural resource use and management and in local, regional, and global ecological transformations. Ms. Rocheleau/Offered every other year

282 CHINESE WOMEN IN LITERATURE AND SOCIETY

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

286 ADVANCED TOPICS IN COMPARATIVE POLITICS

Focus changes each year depending on faculty interest. Has focused on international feminist thought and politics of nationalism. Open to juniors and seniors, can be taken twice. Ms. Enloe/Offered every year

288 GENDER AND FILM

Explores the ways that gender is produced by the social technologies of film and video. We will consider how concepts of gender difference organize representation, narrative, and spectatorship in Hollywood and alternative cinema. Course readings will be theoretical and critical, featuring the contributions of feminist film scholars and critics. Prerequisite: 101 or permission of the instructor. Ms. Butzel/Offered every other year

292 GLOBAL ETHNOGRAPHIES

See CIGP 294. Ms. Bhachu/Offered Periodically

294 HISTORY OF THE ENGLISH LANGUAGE

Examines changes in English during the Anglo-Saxon, medieval, and early modern periods. In addition to learning phonological and grammatical characteristics of the language during each period, the student examines language as a mirror of culture. Ms. Gertz/Offered periodically

295 GENDER IN LANGUAGE USE

Focuses on ways in which biological sex is culturally elaborated into gender patterns in language use. Consideration is given to a range of conversational and rhetorical factors that reveal gender identity. Discussion of race, ethnicity, and social position, as well as the impact of gendered discourse for situations such as the classroom, courtroom, boardroom, and medical examination room. Ms. Johnson/Offered every year

UNDERGRADUATE DIRECTED READINGS IN WOMENS STUDIES (TUTORIAL)

UNDERGRADUATE DIRECTED RESEARCH IN WOMENS STUDIES (TUTORIAL)

UNDERGRADUATE SPECIAL PROJECT IN WOMENS STUDIES (TUTORIAL)

UNDERGRADUATE INTERNSHIP IN WOMENS STUDIES (TUTORIAL)

300 GRADUATE PROSEMINAR IN WOMENS STUDIES (2 CREDITS)

Surveys theoretical analysis and empirical research on women in societies and cultures, cultural representations of women, and women's individual functioning and development. Draws on expertise of program faculty and introduces all three areas of concentration. Reflects interdisciplinary linking and fosters integration between theoretical perspectives and between levels of analysis. Topics include women and economic development; women, societies, and the political process; womens history and diversity; the gendering of social institutions and of labor practices; sociolinguistic, semiotic and cognitive analysis of language, gender, and power; the social construction of gender, self, and identity; feminist perspectives on diversity and difference; and representation of women in the arts. Topics vary yearly. Mandatory. Staff/Offered every other year

301 FOUNDATIONS OF FEMINIST INQUIRY (2 CREDITS)

Reviews recent theoretical analysis and methodological issues pertaining to feminist inquiry in the humanities and social sciences. Provides an interdisciplinary analysis of theories of gender and the relations between gender and power. The approaches surveyed will reflect alternative theoretical perspectives and span literary and cultural theory, social and political theory, feminist epistemology, theories of differences, and theories of individual development. Mandatory. Offered every other year in rotation with WS 300

302 GRADUATE RESEARCH COLLOQUIUM IN WOMENS STUDIES (1 CREDIT)

Taken and run by graduate students during their entire period of study. Students present research-in-progress at least twice. One public presentation should be on the Masters Qualifying Paper if that work was done at Clark. The second presentation should be on the dissertation. Students register for the course during the semester they expect to complete, and receive credit for, work. If they do not present during the semester, they will be awarded an IP grade until they do. Fellow students usually serve as respondents to each presentation. Offered every semester. Mandatory.

305 FEMINIST FILM THEORY AND CRITICISM

Explores the emergence of feminist film criticism and its subsequent elaboration in semiotics, psychoanalysis, marxism, and poststructural approaches to culture. Emphasizes on understanding the role of critical theory in feminist analysis of contemporary culture, particularly film and television texts. Reading includes Freud, Foucault, Lacan, Metz, Mulvey, de Lauretis, and Doane. Students will analyze film, video, and television texts in weekly screenings and discussions. Open to advanced undergraduates with permission. Ms. Butzel/Offered periodically

326 FEMINIST PERSPECTIVES ON MIND, SELF, IDENTITY, AND DEVELOPMENT

Surveys several approaches that examine how self, mind, and identity are constituted and develop in societal context, with particular focus on gender as one category of analysis, both discursive and material. Selected works illustrating these different perspectives as well as some of their current debates will be studied. Prerequisite: permission. Ms. Falmange/Offered every other year

333 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY

An advanced readings course in womens history, looking at major new works and theoretical issues. Ms. Deutsch/Offered every other year

335 FEMINIST GEOGRAPHY/SEMINAR

Explores the intersection of feminism and geography. Topics include feminist theory, epistemological questions in feminist geography, social movements, welfare politics and the state, and work. Ms. Hanson/Offered every other year

354 CHAUCER

See WS 251

386 GRADUATE SEMINAR IN COMPARATIVE POLITICS

An advanced course on specialized topics in comparative politics. Taught by government faculty reflecting their fields of particular interest. Ms. Enloe/Offered every year

389 WOMEN IN THE HEALTH CARE SYSTEM

Explores the position and role of women in the U.S. health care system. It focuses at the aggregate level on women as patients, providers of health care, research subjects, and managers in health care. Each topic is reviewed and discussed based on its implications for the process and content of health care management or health policy. Exposes students to literature that conceptualizes women in their various roles in the health care system and how the system identifies and meets womens need for health services. Prerequisites: MHA 320; MBA 330. Ms. Arndt/Offered every other year

395 GENDER IN LANGUAGE USE

See WS 295

GRADUATE DIRECTED READINGS IN WOMENS STUDIES (TUTORIAL)

Staff/Offered every semester

GRADUATE DIRECTED RESEARCH IN WOMENS STUDIES (TUTORIAL)

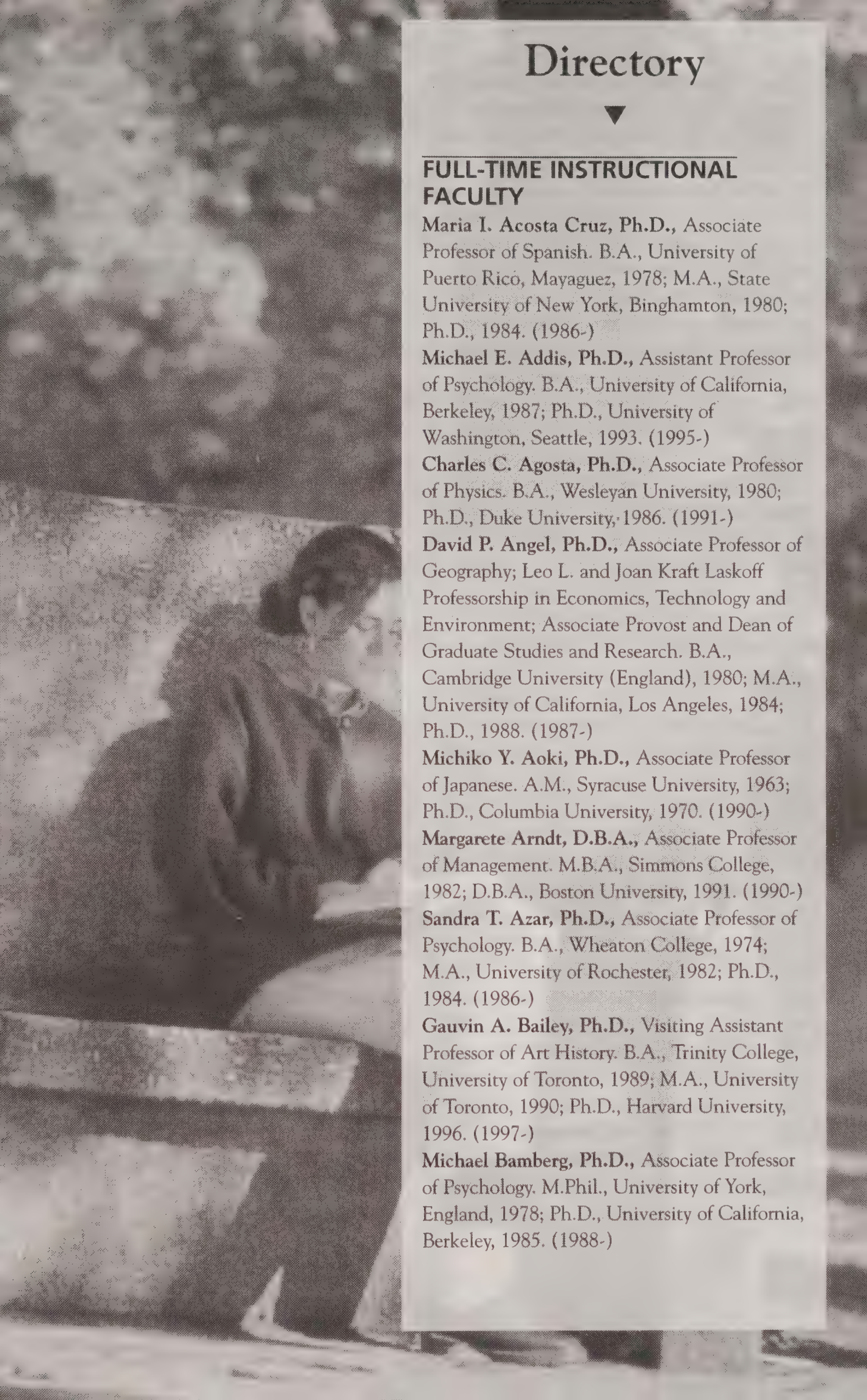
Staff/Offered every semester

GRADUATE DIRECTED WRITINGS IN WOMENS STUDIES (TUTORIAL)

Staff/Offered every semester

GRADUATE SPECIAL PROJECT IN WOMENS STUDIES (TUTORIAL)

Staff/Offered every semester



Directory

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FULL-TIME INSTRUCTIONAL FACULTY

Maria I. Acosta Cruz, Ph.D., Associate Professor of Spanish. B.A., University of Puerto Rico, Mayaguez, 1978; M.A., State University of New York, Binghamton, 1980; Ph.D., 1984. (1986-)

Michael E. Addis, Ph.D., Assistant Professor of Psychology. B.A., University of California, Berkeley, 1987; Ph.D., University of Washington, Seattle, 1993. (1995-)

Charles C. Agosta, Ph.D., Associate Professor of Physics. B.A., Wesleyan University, 1980; Ph.D., Duke University, 1986. (1991-)

David P. Angel, Ph.D., Associate Professor of Geography; Leo L. and Joan Kraft Laskoff Professorship in Economics, Technology and Environment; Associate Provost and Dean of Graduate Studies and Research. B.A., Cambridge University (England), 1980; M.A., University of California, Los Angeles, 1984; Ph.D., 1988. (1987-)

Michiko Y. Aoki, Ph.D., Associate Professor of Japanese. A.M., Syracuse University, 1963; Ph.D., Columbia University, 1970. (1990-)

Margarete Arndt, D.B.A., Associate Professor of Management. M.B.A., Simmons College, 1982; D.B.A., Boston University, 1991. (1990-)

Sandra T. Azar, Ph.D., Associate Professor of Psychology. B.A., Wheaton College, 1974; M.A., University of Rochester, 1982; Ph.D., 1984. (1986-)

Gauvin A. Bailey, Ph.D., Visiting Assistant Professor of Art History. B.A., Trinity College, University of Toronto, 1989; M.A., University of Toronto, 1990; Ph.D., Harvard University, 1996. (1997-)

Michael Bamberg, Ph.D., Associate Professor of Psychology. M.Phil., University of York, England, 1978; Ph.D., University of California, Berkeley, 1985. (1988-)

Dana Benelli, Ph.D., Assistant Professor of Screen Studies. B.A., Stanford University, 1970; B.A., The University of Washington, 1978; M.A., The University of Iowa, 1982; Ph.D. 1992. (1990-)

Daniel M. Bernhofen, Ph.D., Assistant Professor of Economics. M.S. in Mathematics, Syracuse University, 1987; M.A. in Economics, 1991; Ph.D., 1994. (1994-)

Parminder K. Bhachu, Ph.D., Henry R. Luce Associate Professor of Cultural Identity and Global Processes. B.Sc., University College, London, 1976; Ph.D., London University, 1981. (1991-)

Roger Bibace, Ph.D., Professor of Psychology. A.B. University of British Columbia, 1949; Ph.D., Clark University, 1957. (1957-1994)

Barbara Bigelow, Ph.D., Associate Professor of Management. B.A., Cornell University, 1973; M.A., Simmons College, 1980; Ph.D., Sloan School of Management, Massachusetts Institute of Technology, 1987. (1989-)

S. Leslie Blatt, Ph.D., Professor of Physics and Education; Chair, Department of Physics. A.B., Princeton University, 1957; M.S., Stanford University, 1959; Ph.D., 1965. (1987-)

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Gerald R. Castonguay, Ph.D., Associate Professor of Music. B.Mus., Boston University, 1959; M.Mus., Hartt College of Music, 1963; M.A., Harvard University, 1965; Ph.D. Rutgers University, 1975. (1970-)

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James D. Laird, Ph.D., Professor of Psychology. B.A., Middlebury College, 1962; Ph.D., University of Rochester, 1966. (1966-)

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CLARK UNIVERSITY
ACADEMIC CALENDAR 1998-1999

FALL 1998

Aug.	21-26	Early Orientation; New international and early students arrive
Aug.	23-26	Residence halls open for new students; Orientation for all new undergraduate students
Tues.	Aug. 25	Residence halls open at 9 a.m. for returning students; orientation continues for new undergraduate and graduate students
Wed.	Aug. 26	Course Selection Day for new students
	Aug. 26	Enrollment for continuing undergraduate students; orientation continues for new undergraduate and graduate students
Thur.	Aug. 27	First day of classes; Consortium and special student registration begins; Convocation at 4 p.m.
Mon.	Sept. 7	Labor Day-no classes
Wed.	Sept. 9	Course Summary Form due: Last day to add courses without petition and last day to drop courses without a grade of W (withdrawal)
	Oct. 2-4	Family Weekend
Sat.	Oct. 17	Mid-term break begins (after last class on Friday, Oct. 16)
Wed.	Oct. 21	Classes resume
Fri.	Oct. 23	Mid-term grades due
Mon.	Nov. 2	Course selection for Spring 1999 begins
Fri.	Nov. 13	Course selection for Spring 1999 ends
Tues.	Nov. 24	Thanksgiving recess begins after last class
Mon.	Nov. 30	Classes resume
Thurs.	Dec. 10	Last day of classes (University Monday); last day to withdraw from a course in the Undergraduate College
	Dec. 11-13	Reading days
Mon.	Dec. 14	Fall final exams begin
Fri.	Dec. 18	Fall final exams end; Winter recess begins after last exam
Sat.	Dec. 19	Exam make up day
Sat.	Dec. 19	Residence halls close at 5 p.m.

SPRING 1999

Mon.	Jan. 4	Fall semester grades are due from instructors to Student Records
Sun.	Jan. 17	Residence hall open at 9 a.m.
Mon.	Jan. 18	Enrollment day for undergraduate students
Tues.	Jan. 19	Classes begin
Tues.	Feb. 2	Course Summary Form due: last day to add courses without petition and last day to drop courses without a grade of W (withdrawal)
Fri.	Mar. 5	Spring break begins after last class
Mon.	Mar. 15	Classes resume
Wed.	Mar. 17	Housing deposits due for 1999-2000
Thur.	Mar. 19	Mid-term grades due
Mon.	Apr. 5	Course selection for Fall 1999 begins
Fri.	Apr. 16	Course selection for Fall 1999 ends
Fri.	Apr. 23	Academic Spree Day
Mon.	May 3	Last day of classes; last day for undergraduates to withdraw from a course
Tue.	May 4	Reading days
Wed.	May 5	Reading days
Thur.	May 6	Spring final exams begin (no exams on Saturday)
Wed.	May 12	Spring final exams end
Thur.	May 13	Residence halls close for non-graduating students
Fri.	May 14	Spring semester grades due for seniors
Sun.	May 23	Commencement
Mon.	May 24	Residence halls close at 12 p.m. for degree recipients;
Mon.	May 24	Spring semester grades are due from instructors to Student Records

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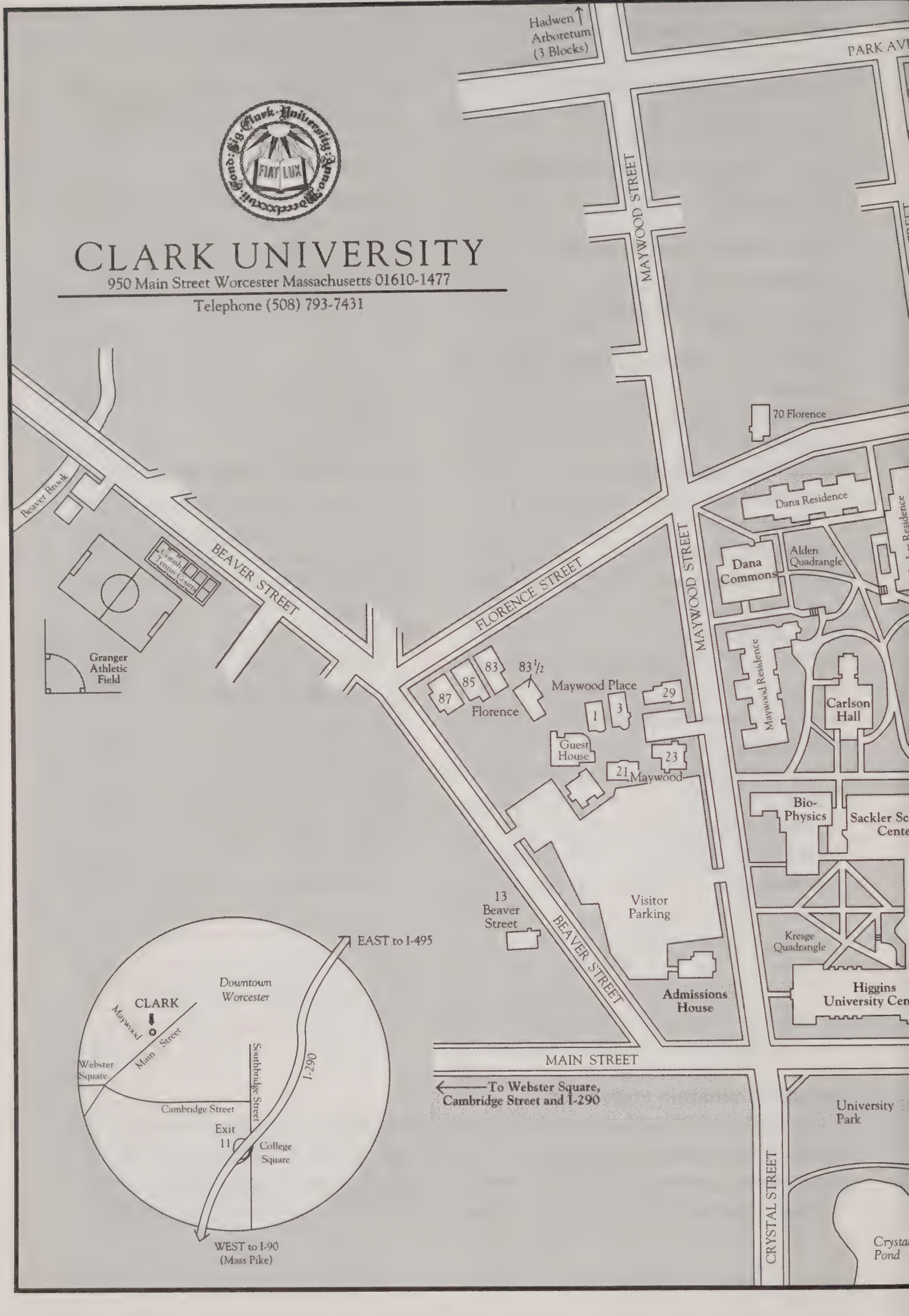
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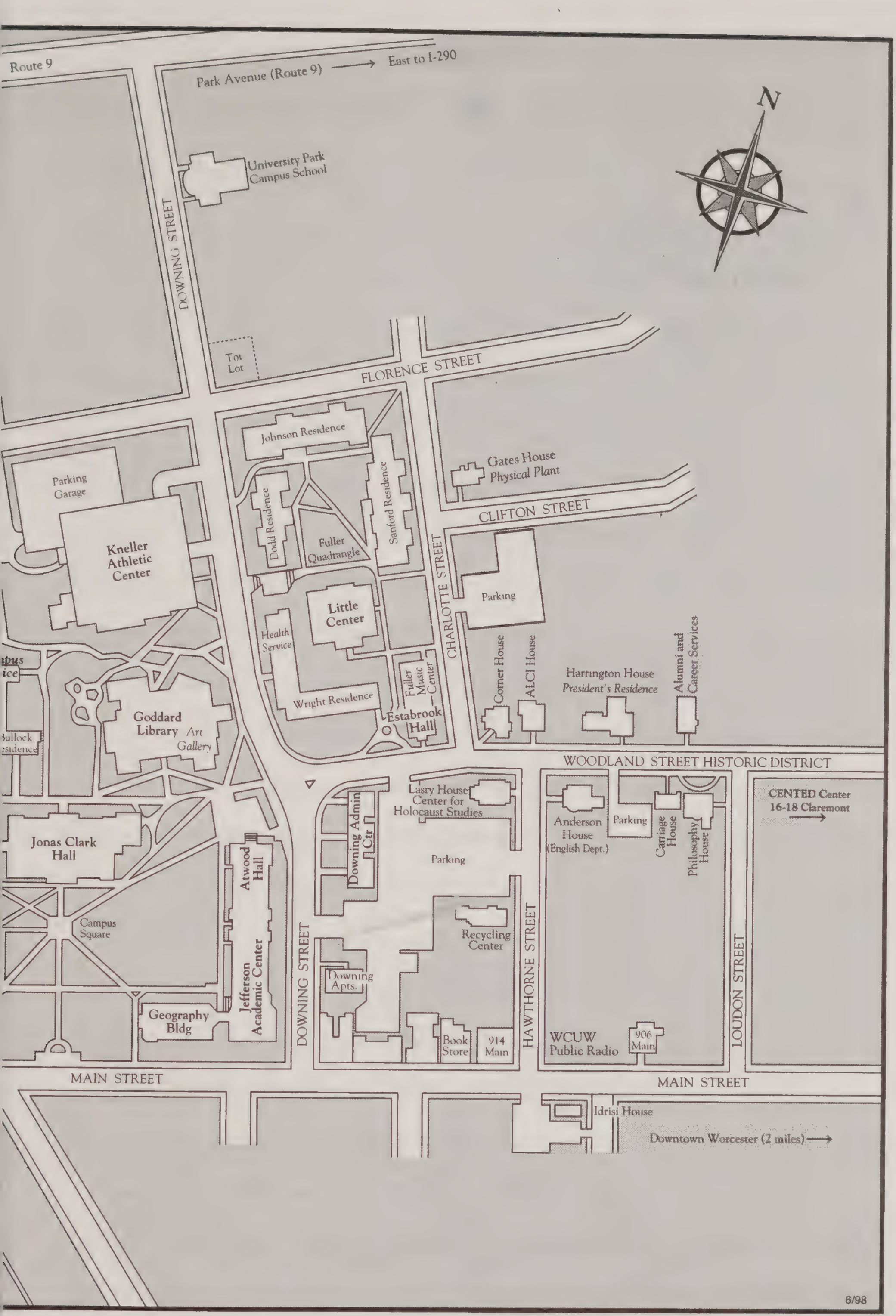
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Anderson
House
(English Dept.)
Parking
Carriage
House
Philosophy
House
CENTED Center
16-18 Claremont
Jonas Clark
Hall
Atwood
Hall
Campus
Square
Jefferson
Academic Center
Geography
Bldg
DOWNING STREET
Recycling
Center
Downing
Apts.
HAWTHORNE STREET
LOUDON STREET
Book
Store
914
Main
WCUW
Public Radio
906
Main
MAIN STREET
MAIN STREET
Idrisi House
Downtown Worcester (2 miles)
6/98

Notes

President Scholar
Achievement

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